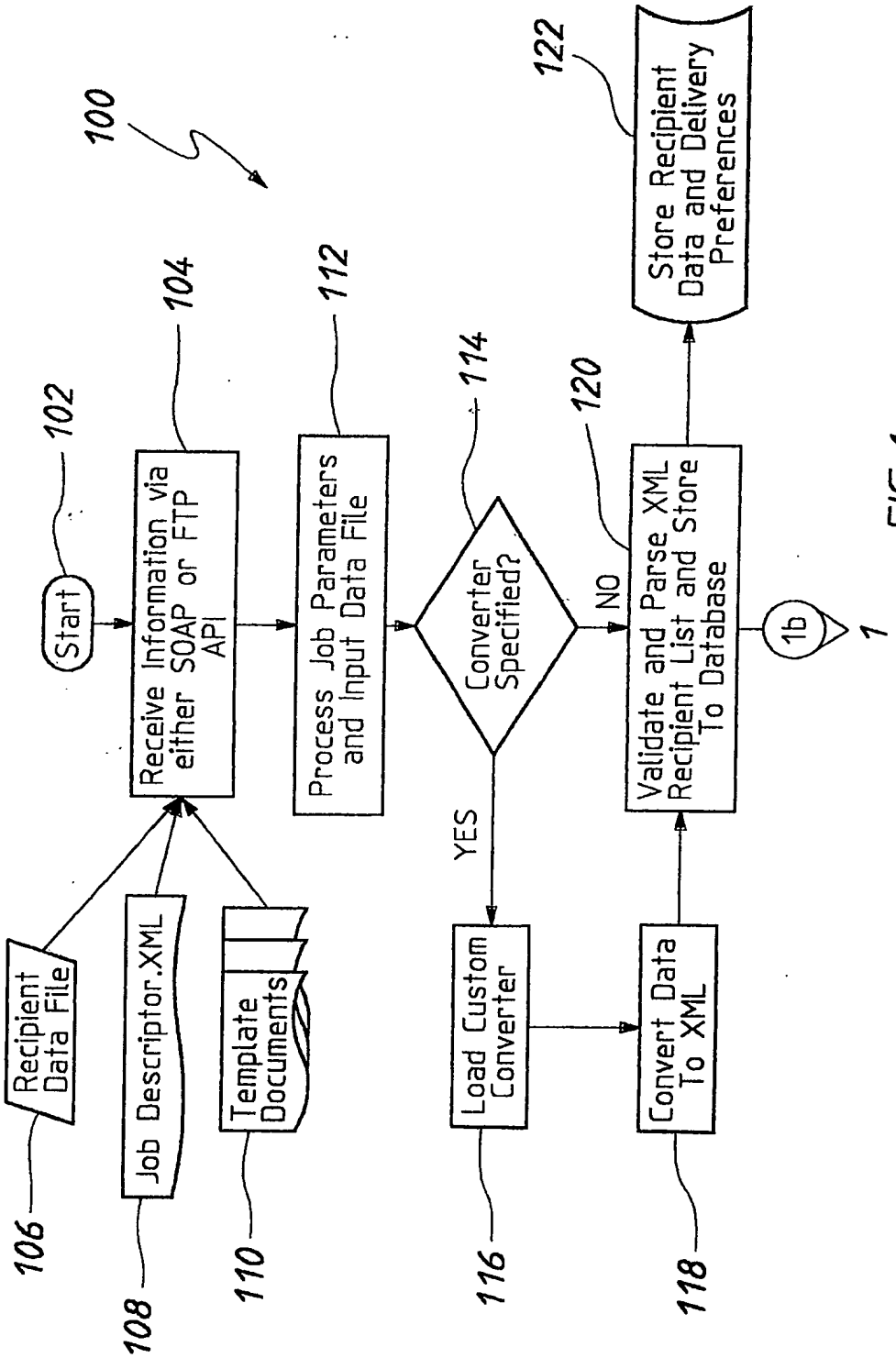

100
102
Start
104
Receive Information via either SOAP or FTP API
106
Recipient Data File
108
Job Descriptor.XML
110
Template Documents
112
Process Job Parameters and Input Data File
114
Converter Specified?
YES
116
Load Custom Converter
118
Convert Data To XML
120
NO
Validate and Parse XML Recipient List and Store To Database
122
Store Recipient Data and Delivery Preferences
1b
1

FIG. 1a

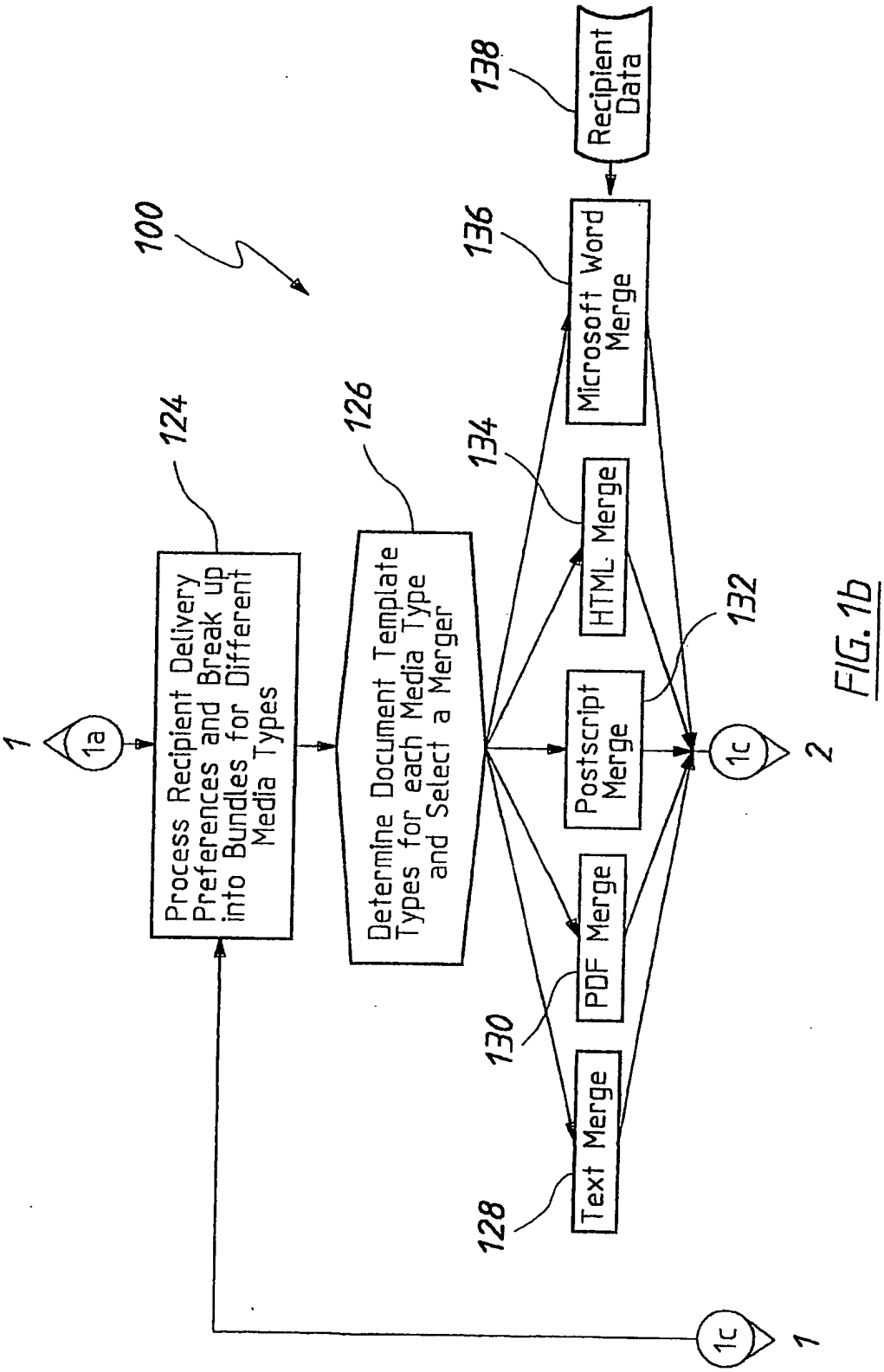

100
1
1a
Process Recipient Delivery Preferences and Break up into Bundles for Different Media Types
124
Determine Document Template Types for each Media Type and Select a Merger
126
Recipient Data
138
Microsoft Word Merge
136
HTML Merge
134
Postscript Merge
132
PDF Merge
130
Text Merge
128
1c
2
1c
1

FIG. 1b

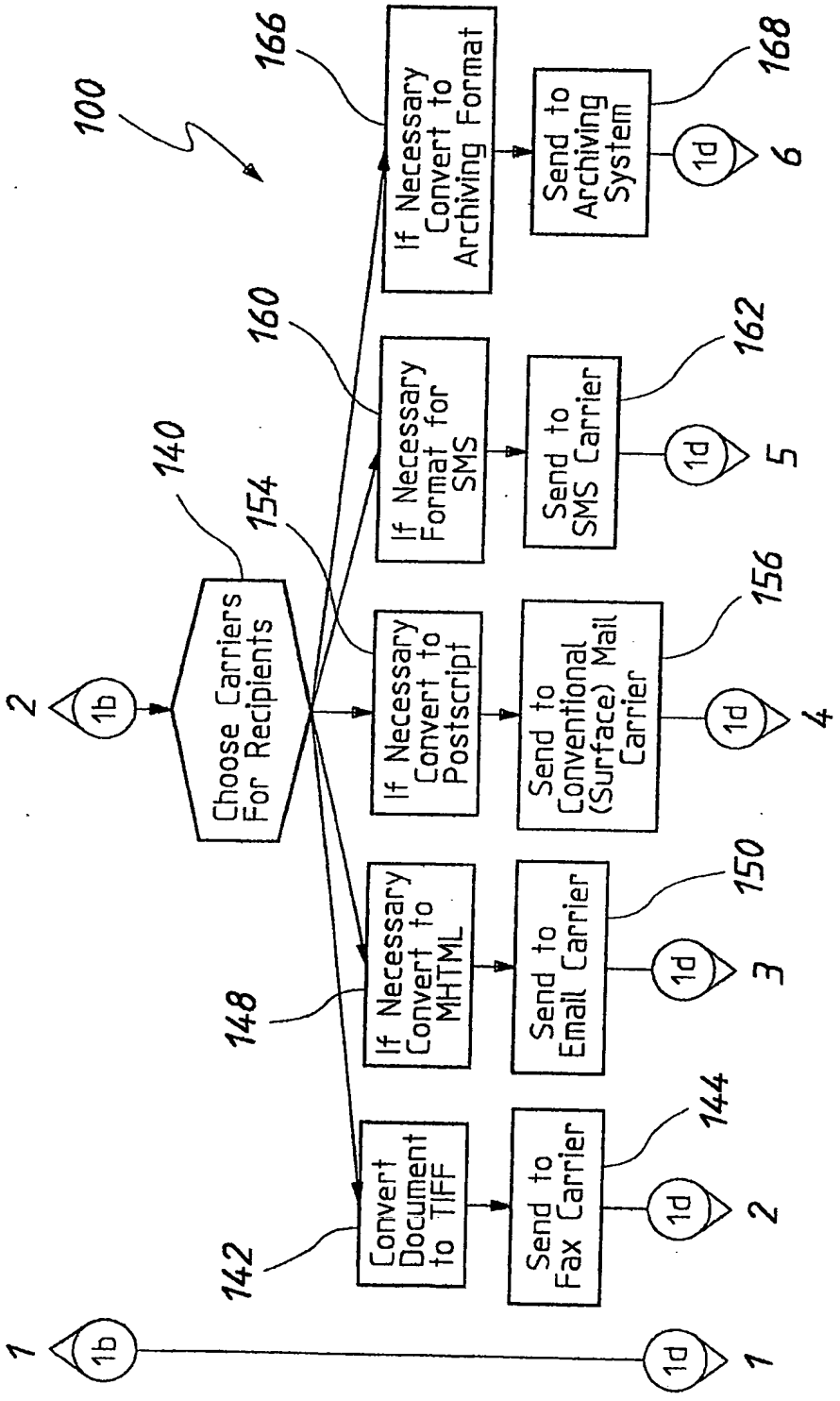

100
166
168
If Necessary Convert to Archiving Format
Send to Archiving System
1d
6
160
162
If Necessary Format for SMS
Send to SMS Carrier
1d
5
140
154
156
Choose Carriers For Recipients
If Necessary Convert to Postscript
Send to Conventional (Surface) Mail Carrier
1d
4
2
1b
148
150
If Necessary Convert to MHTML
Send to Email Carrier
1d
3
142
144
Convert Document to TIFF
Send to Fax Carrier
1d
2
1
1b
1d
1

FIG. 1C

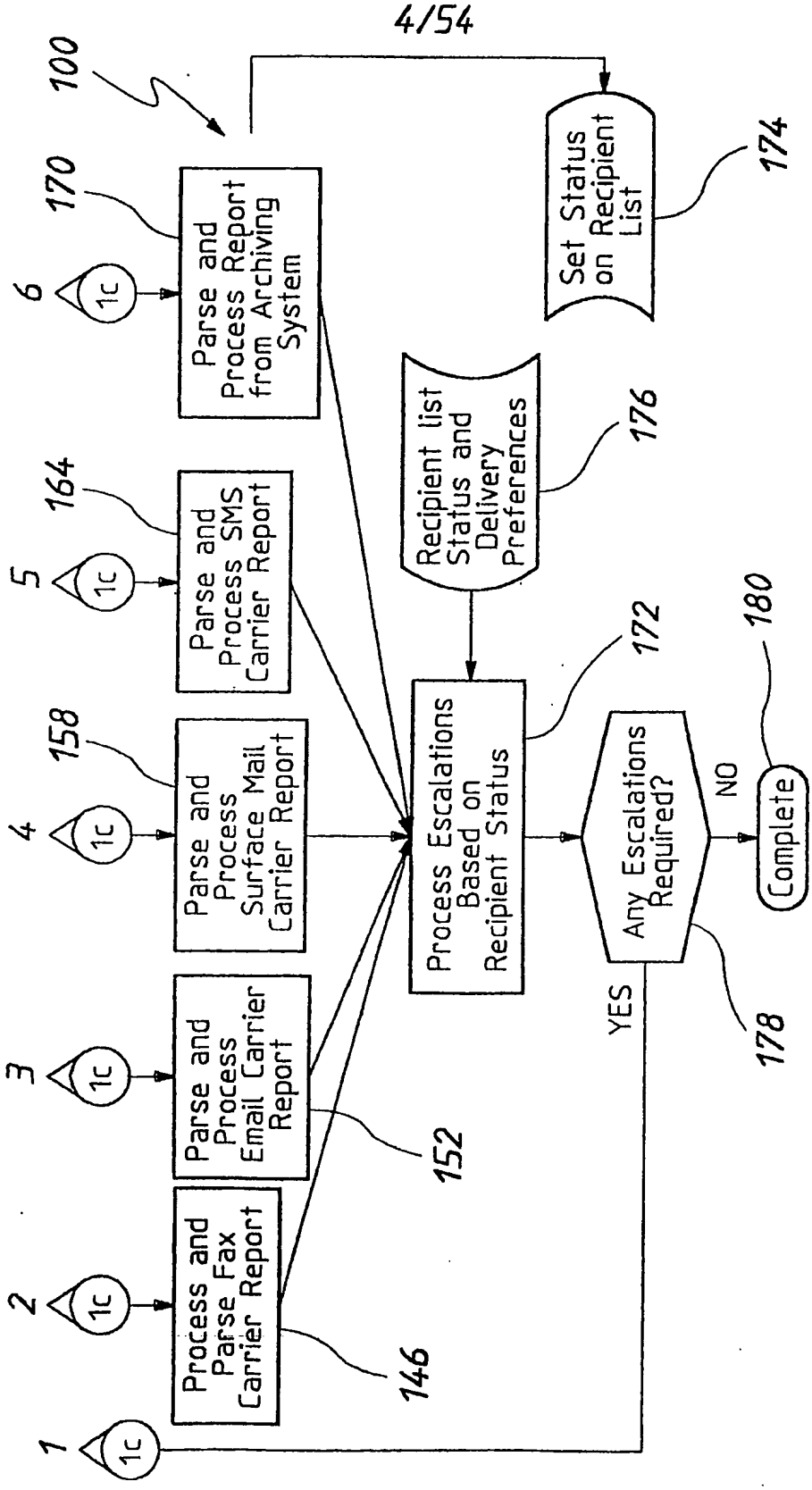

100
170
Parse and Process Report from Archiving System
6
1c
164
Parse and Process SMS Carrier Report
5
1c
158
Parse and Process Surface Mail Carrier Report
4
1c
Parse and Process Email Carrier Report
3
1c
Process and Parse Fax Carrier Report
2
1c
1
1c
146
152
Process Escalations Based on Recipient Status
172
Recipient list Status and Delivery Preferences
176
Set Status on Recipient List
174
Any Escalations Required?
NO
YES
180
Complete
178

FIG. 1d

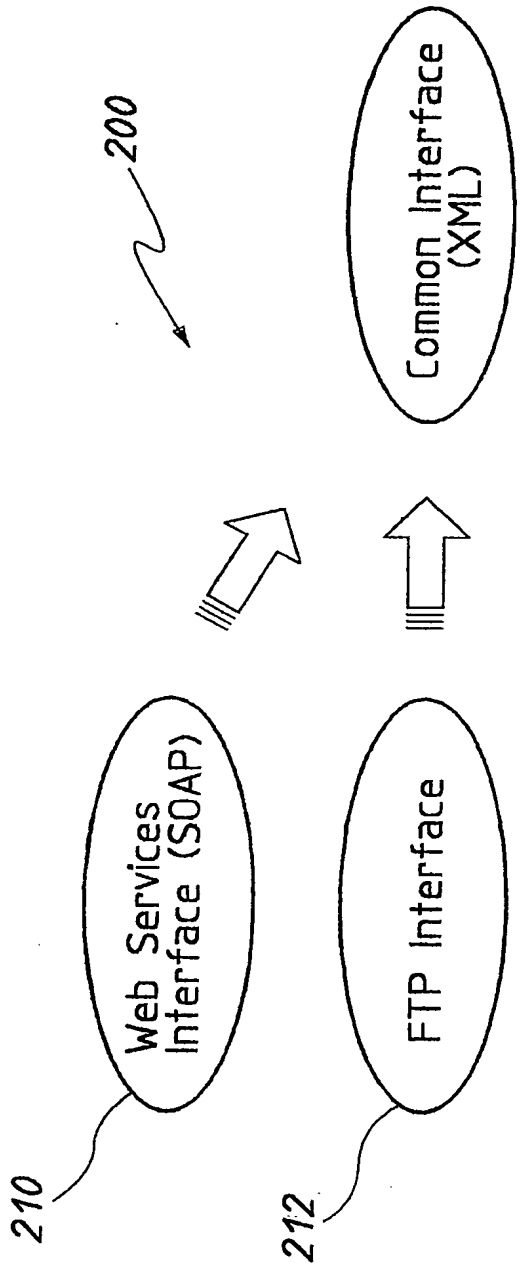

200
Common Interface (XML)
Web Services Interface (SOAP)
FTP Interface
Web Interface (HTML)
210
212
214

FIG.2

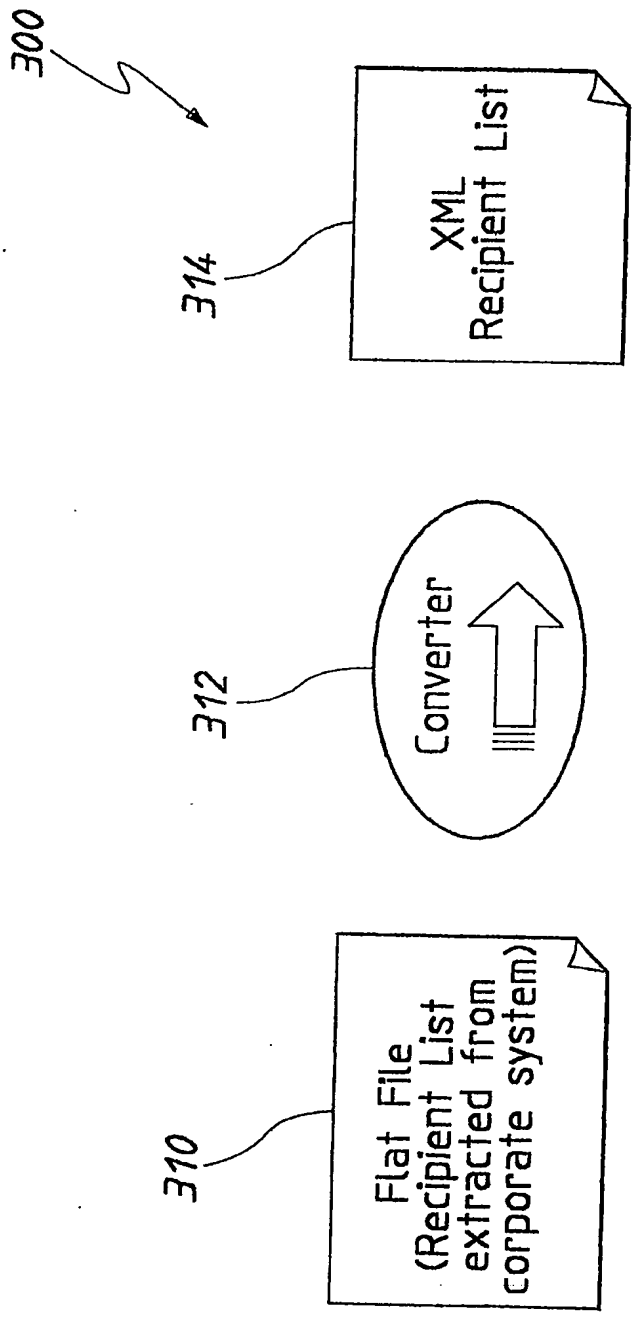

300
314
XML Recipient List
312
Converter
310
Flat File (Recipient List extracted from corporate system)

FIG.3

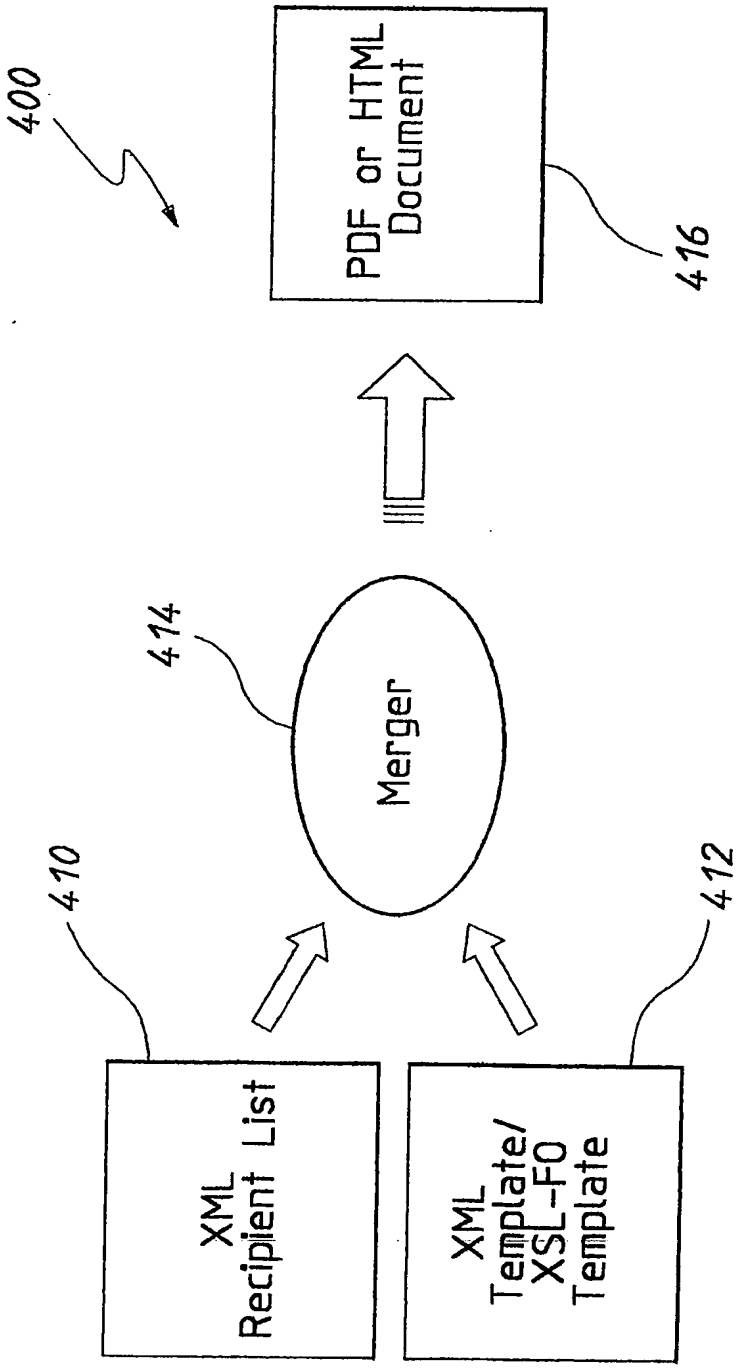

400
PDF or HTML Document
416
Merger
414
XML Recipient List
410
XML Template/ XSL-FO Template
412

FIG.4

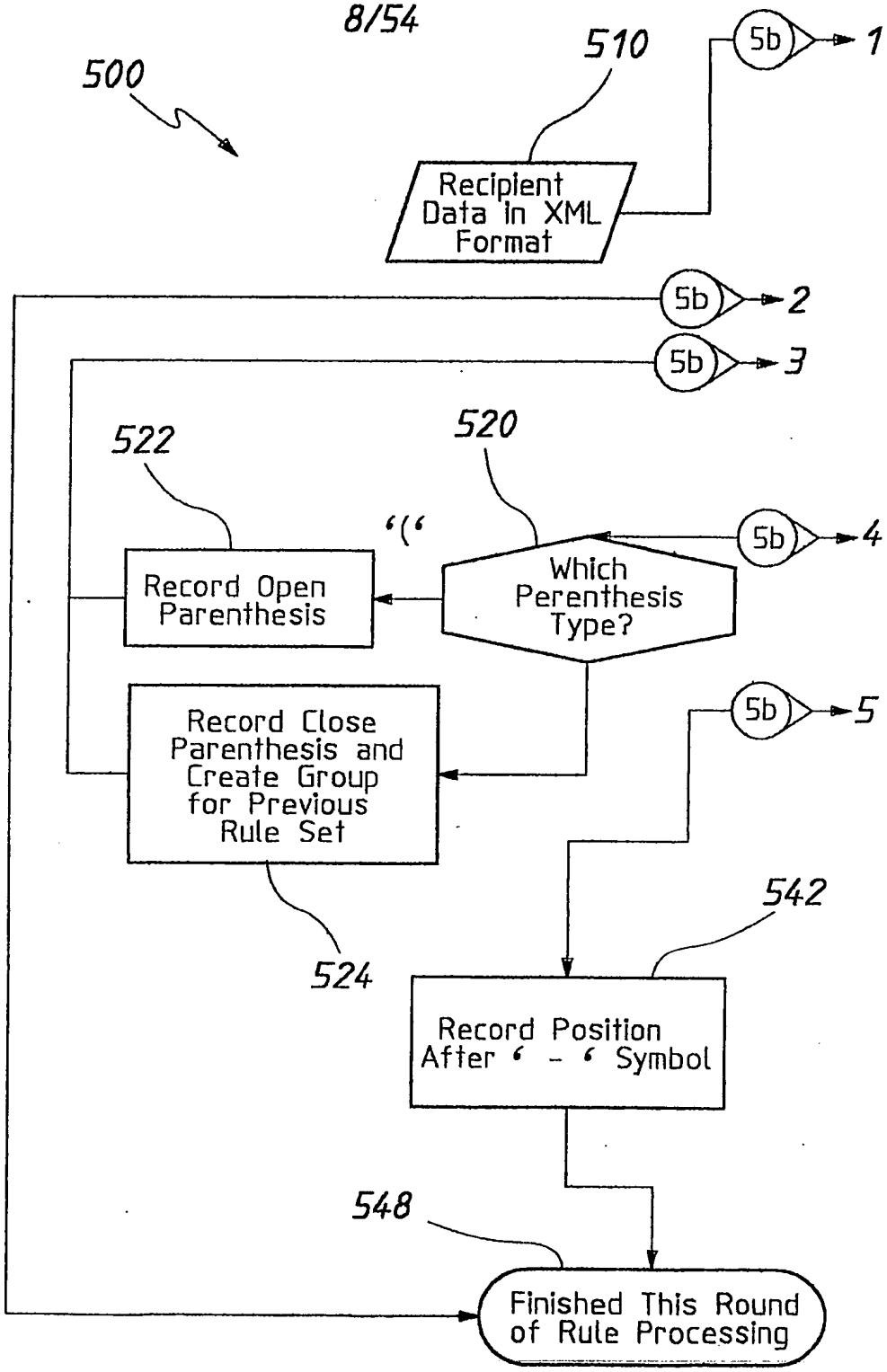

500
510
Recipient Data in XML Format
5b
1
5b
2
5b
3
522
520
"("
5b
4
Record Open Parenthesis
Which Perenthesis Type?
Record Close Parenthesis and Create Group for Previous Rule Set
5b
5
524
542
Record Position After ' - ' Symbol
548
Finished This Round of Rule Processing

FIG.5a

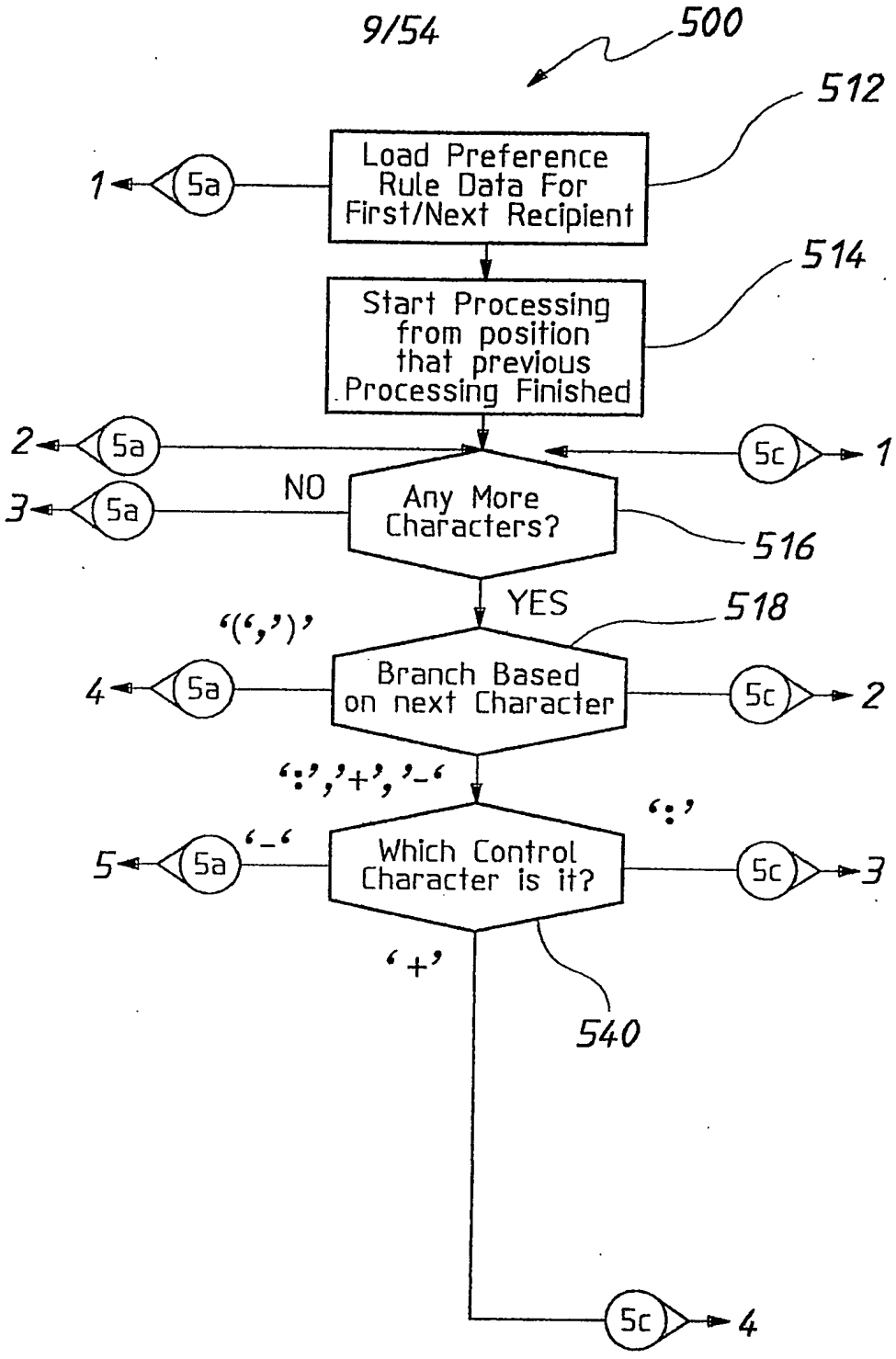

500
512
Load Preference Rule Data For First/Next Recipient
1
5a
514
Start Processing from position that previous Processing Finished
2
5a
5c
1
3
5a
NO
Any More Characters?
516
YES
518
"(",")"
Branch Based on next Character
4
5a
5c
2
":","+","-"
":"
"-"
Which Control Character is it?
5
5a
5c
3
"+"
540
5c
4

FIG.5b

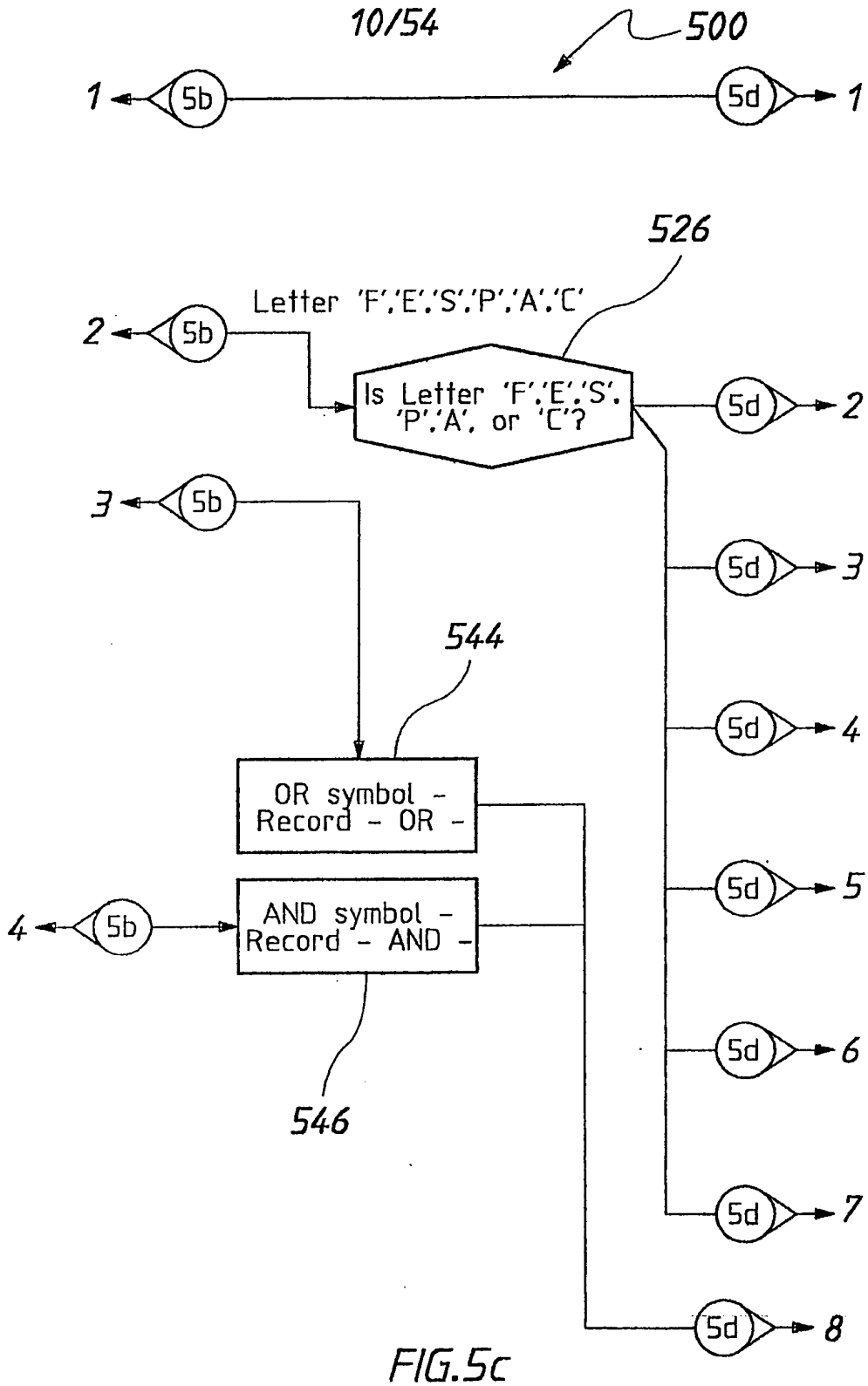

500
1
5b
5d
1
526
Letter 'F','E','S','P','A','C'
2
5b
Is Letter 'F','E','S', 'P','A', or 'C'?
5d
2
3
5b
5d
3
544
5d
4
OR symbol - Record - OR -
5d
5
4
5b
AND symbol - Record - AND -
5d
6
546
5d
7
5d
8

FIG.5c

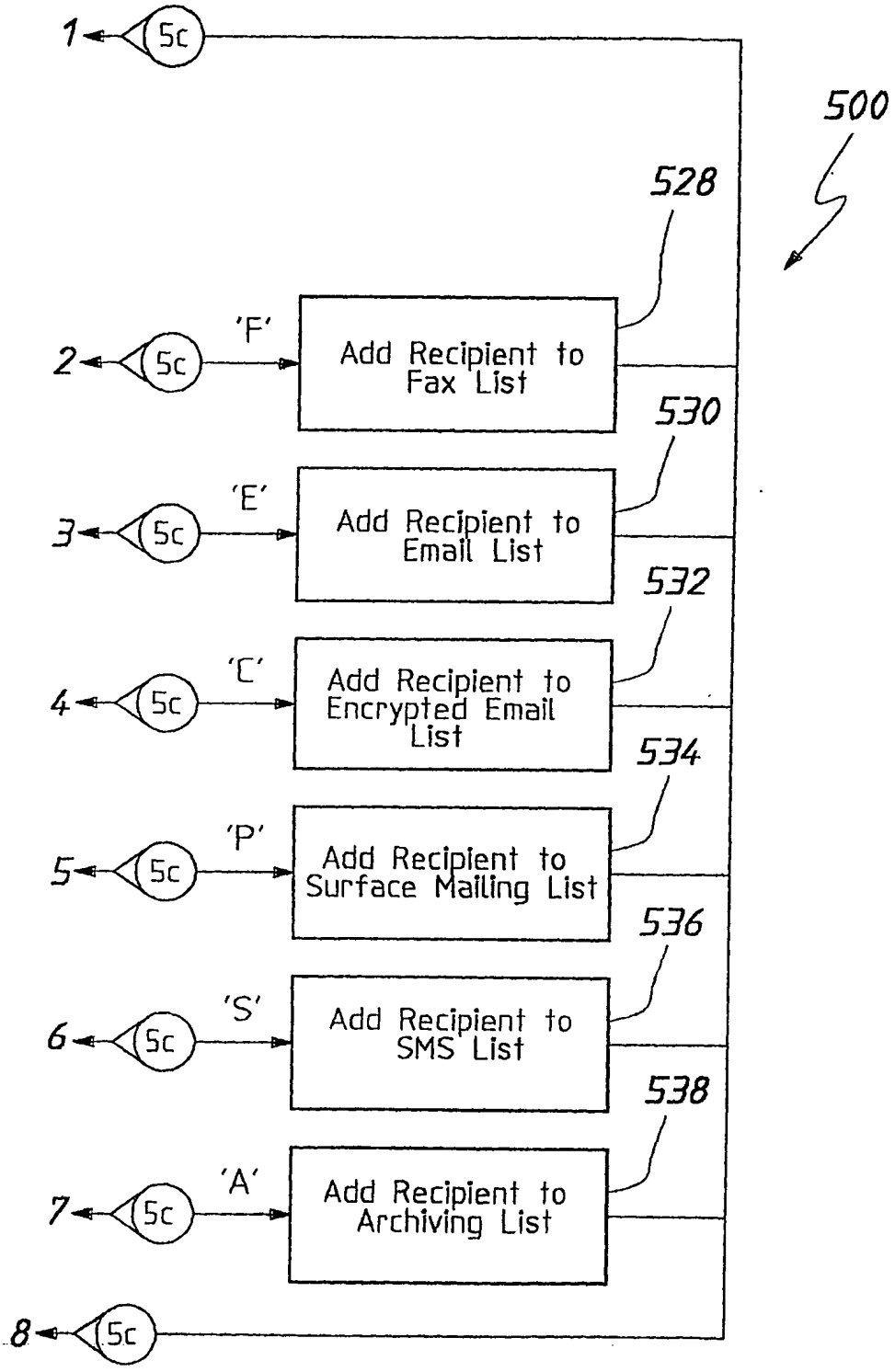

1
5c
500
528
2
5c
'F'
Add Recipient to Fax List
530
3
5c
'E'
Add Recipient to Email List
532
4
5c
'C'
Add Recipient to Encrypted Email List
534
5
5c
'P'
Add Recipient to Surface Mailing List
536
6
5c
'S'
Add Recipient to SMS List
538
7
5c
'A'
Add Recipient to Archiving List
8
5c

FIG.5d

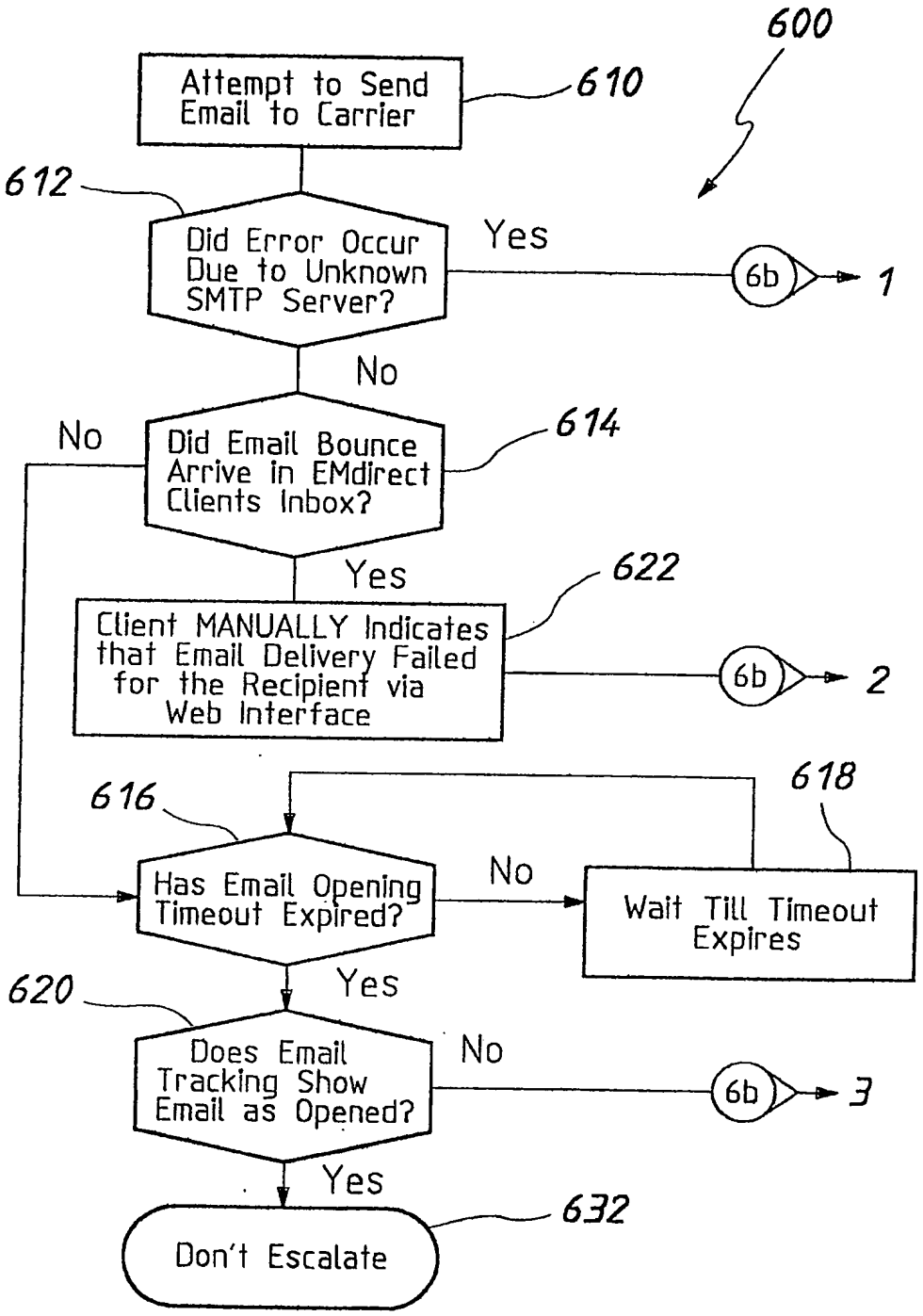

600
Attempt to Send Email to Carrier
610
612
Did Error Occur Due to Unknown SMTP Server?
Yes
6b
1
No
No
Did Email Bounce Arrive in EMdirect Clients Inbox?
614
Yes
622
Client MANUALLY Indicates that Email Delivery Failed for the Recipient via Web Interface
6b
2
616
618
Has Email Opening Timeout Expired?
No
Wait Till Timeout Expires
Yes
620
Does Email Tracking Show Email as Opened?
No
6b
3
Yes
632
Don't Escalate

FIG.6a

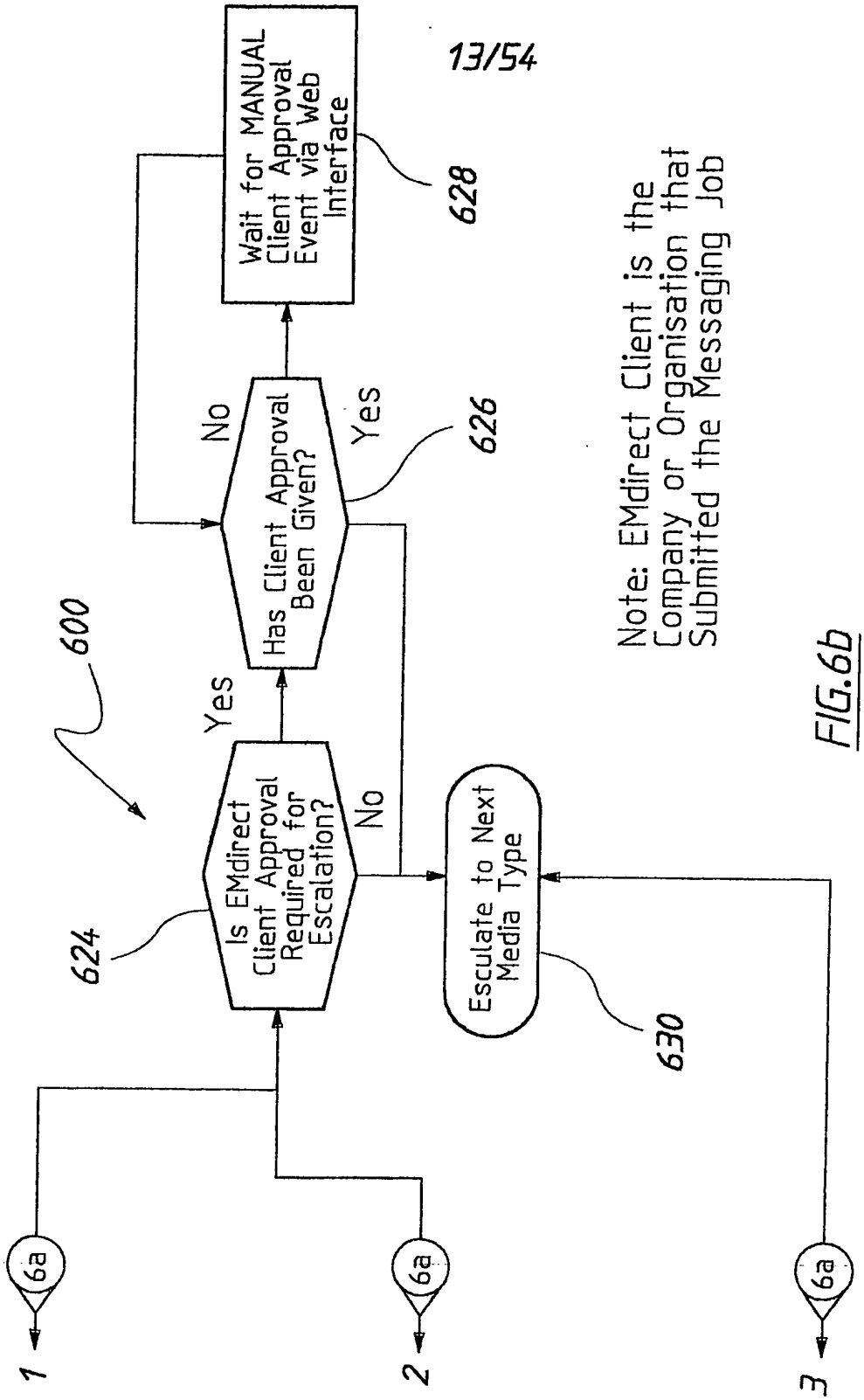

Wait for MANUAL Client Approval Event via Web Interface
628
Has Client Approval Been Given?
626
No
Yes
Is EMdirect Client Approval Required for Escalation?
624
600
Yes
No
Esculate to Next Media Type
630
6a
6a
6a
1
2
3
Note: EMdirect Client is the Company or Organisation that Submitted the Messaging Job

FIG.6b

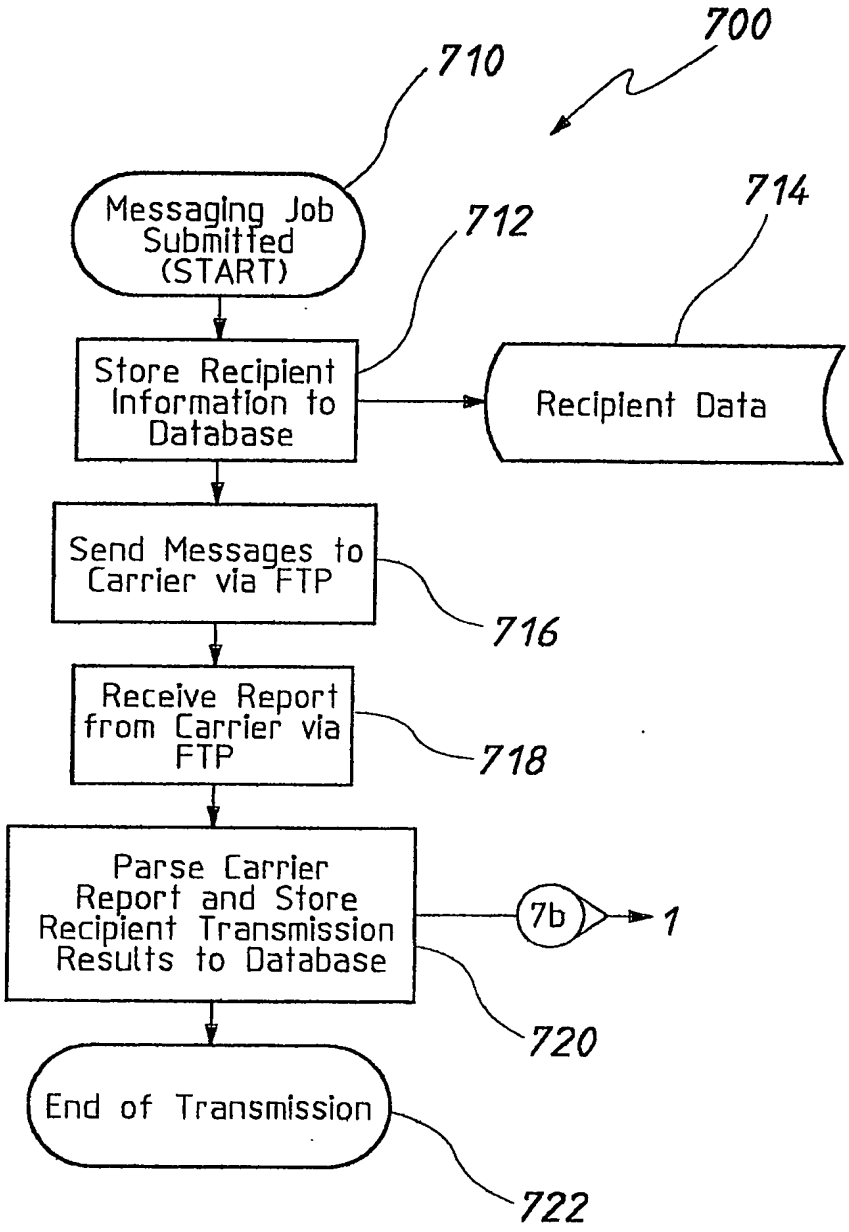

700
710
Messaging Job Submitted (START)
712
Store Recipient Information to Database
714
Recipient Data
Send Messages to Carrier via FTP
716
Receive Report from Carrier via FTP
718
Parse Carrier Report and Store Recipient Transmission Results to Database
7b
1
720
End of Transmission
722

FIG.7a

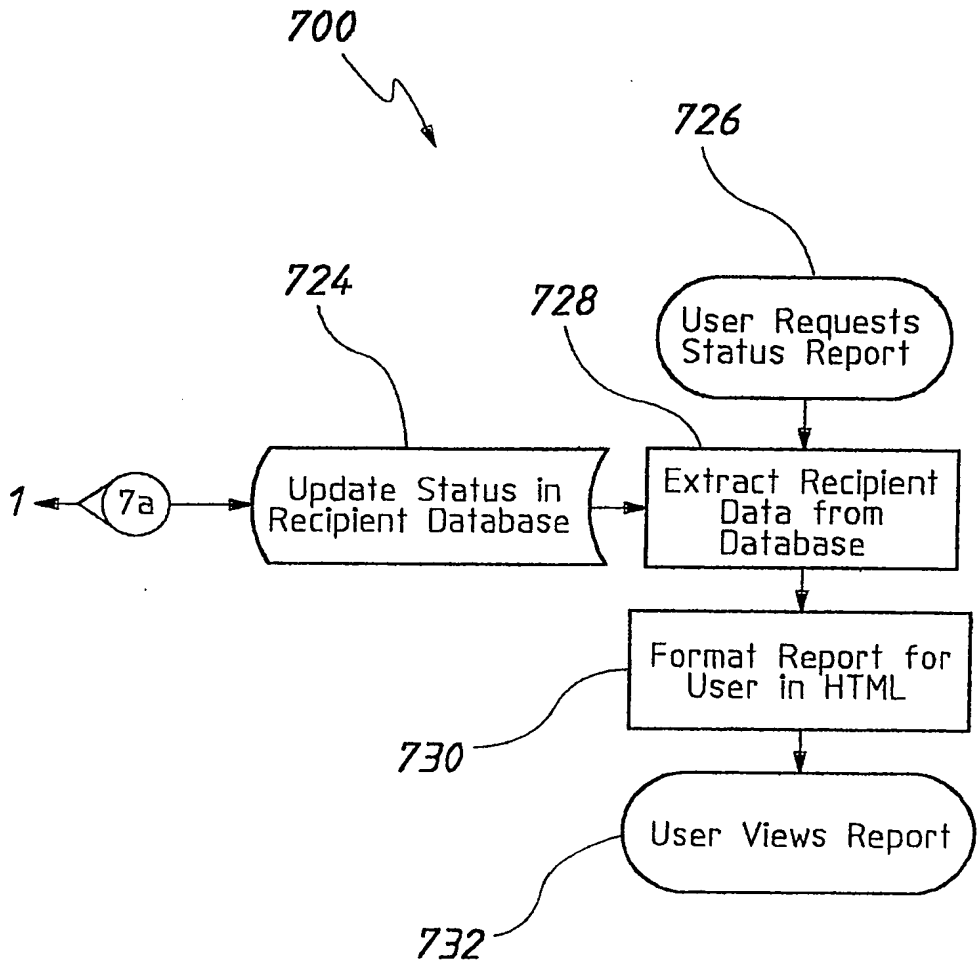

700
726
724
728
User Requests Status Report
1
7a
Update Status in Recipient Database
Extract Recipient Data from Database
Format Report for User in HTML
730
User Views Report
732

FIG.7b

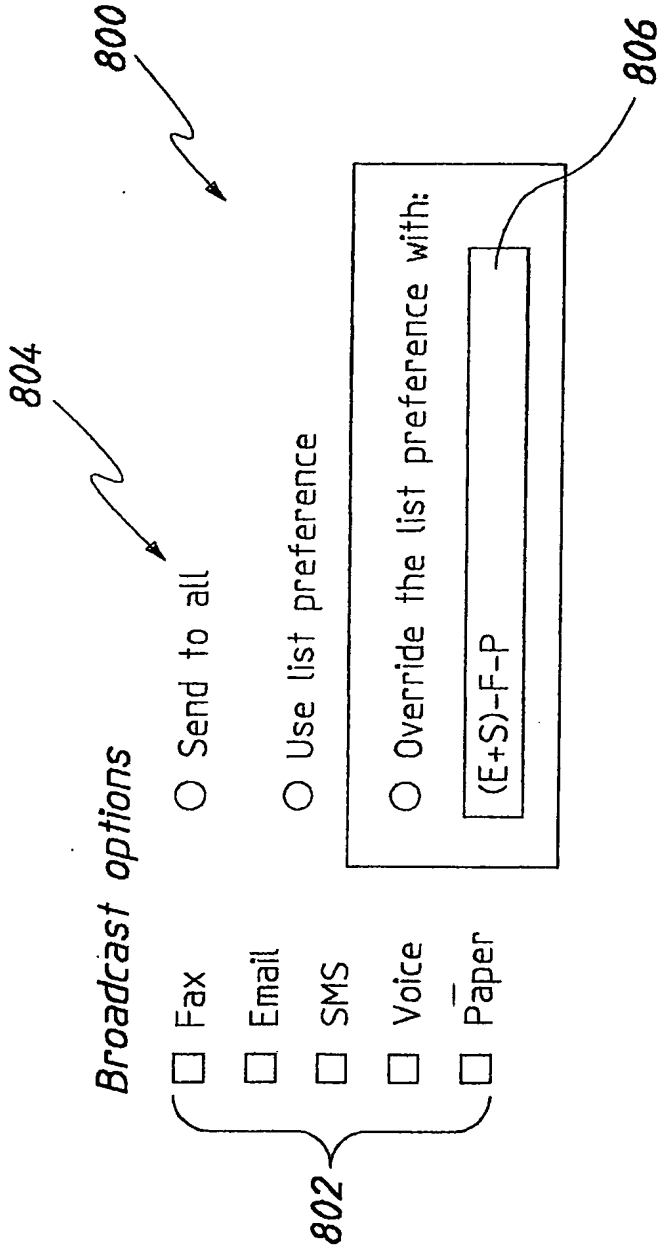

800
804
806
Broadcast options
Fax
Email
SMS
Voice
Paper
802
Send to all
Use list preference
Override the list preference with:
(E+S)-F-P

FIG.8

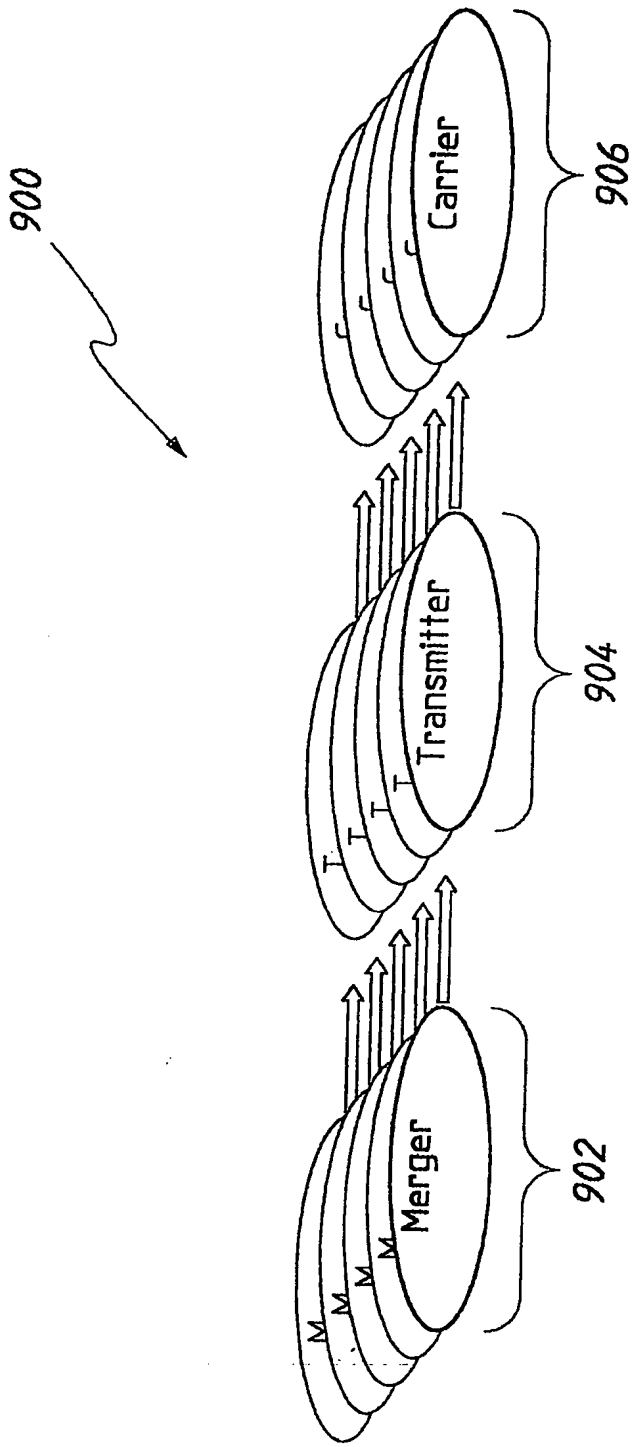


FIG.9

1000

```
< ?xml version="1.0" encoding="UTF-8"? >
< xsd:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsd="http://www.w3.org/2001/XMLSchema" >
  < xsd:element name="recipient-list" >
    < xsd:complexType >
      < xsd:sequence >
        < xsd:element name="recipient" minOccurs="0" maxOccurs="unbounded" >
          < xsd:complexType >
            < xsd:sequence >
              < xsd:element name="personal-details" >
                < xsd:complexType >
                  < xsd:sequence >
                    < xsd:element name="title" type="xsd:string" / >
                    < xsd:element name="firstname" type="xsd:string" / >
                    < xsd:element name="lastname" type="xsd:string" / >
                    < xsd:element name="address" type="xsd:string" / >
                    < xsd:element name="city-country" type="xsd:string" / >
                    < xsd:element name="department" type="xsd:string" / >
                    < xsd:element name="emailaddress" type="xsd:string" / >
                  < /xsd:sequence >
                < /xsd:complexType >
              < /xsd:element >
```

10a_2

FIG. 10a_1

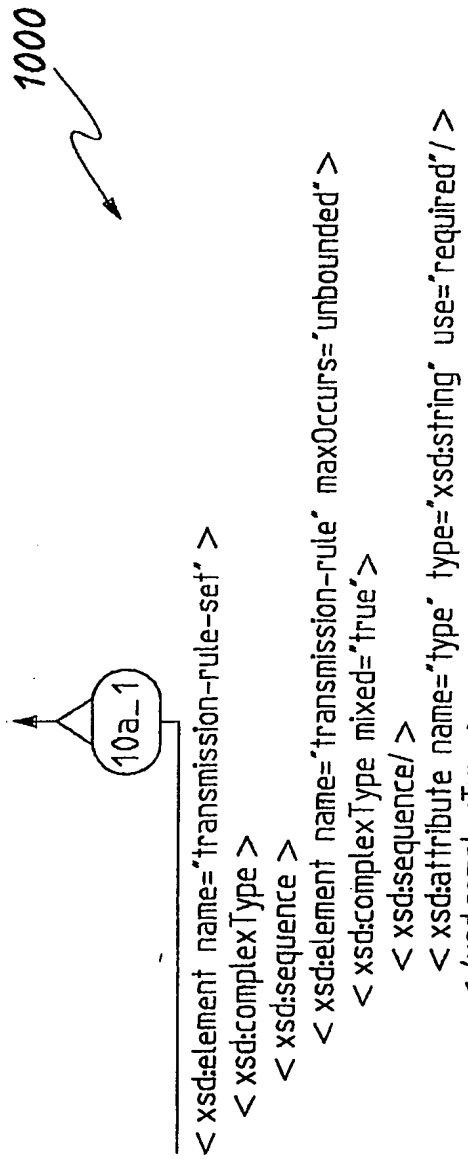

1000
10a_1
< xsd:element name="transmission-rule-set" >
< xsd:complexType >
< xsd:sequence >
< xsd:element name="transmission-rule" maxOccurs="unbounded" >
< xsd:complexType mixed="true" >
< xsd:sequence/ >
< xsd:attribute name="type" type="xsd:string" use="required"/ >
< /xsd:complexType >
< /xsd:element >
< /xsd:sequence >
< /xsd:complexType >
< /xsd:element >

FIG. 10a_2

```
< xsd:element name="media-set" >
  < xsd:complexType >
    < xsd:sequence >
      < xsd:element name="media-type" maxOccurs="unbounded" >
        < xsd:complexType >
          < xsd:sequence >
            < xsd:element name="email-address" type="xsd:string" >
minOccurs="0" / >

            < xsd:element name="surface-mail-address" minOccurs="0" >
              < xsd:complexType >
                < xsd:sequence >
                  < xsd:element name="street-address"
type="xsd:string" / >

                  < xsd:element name="suburb" type=xsd:string" / >
                  < xsd:element name="state" type="xsd:string" / >
                  < xsd:element name="country" type="xsd:string" / >
                  < xsd:element name="postcode" type="xsd:string" / >
```

10b_2

FIG. 10b_1

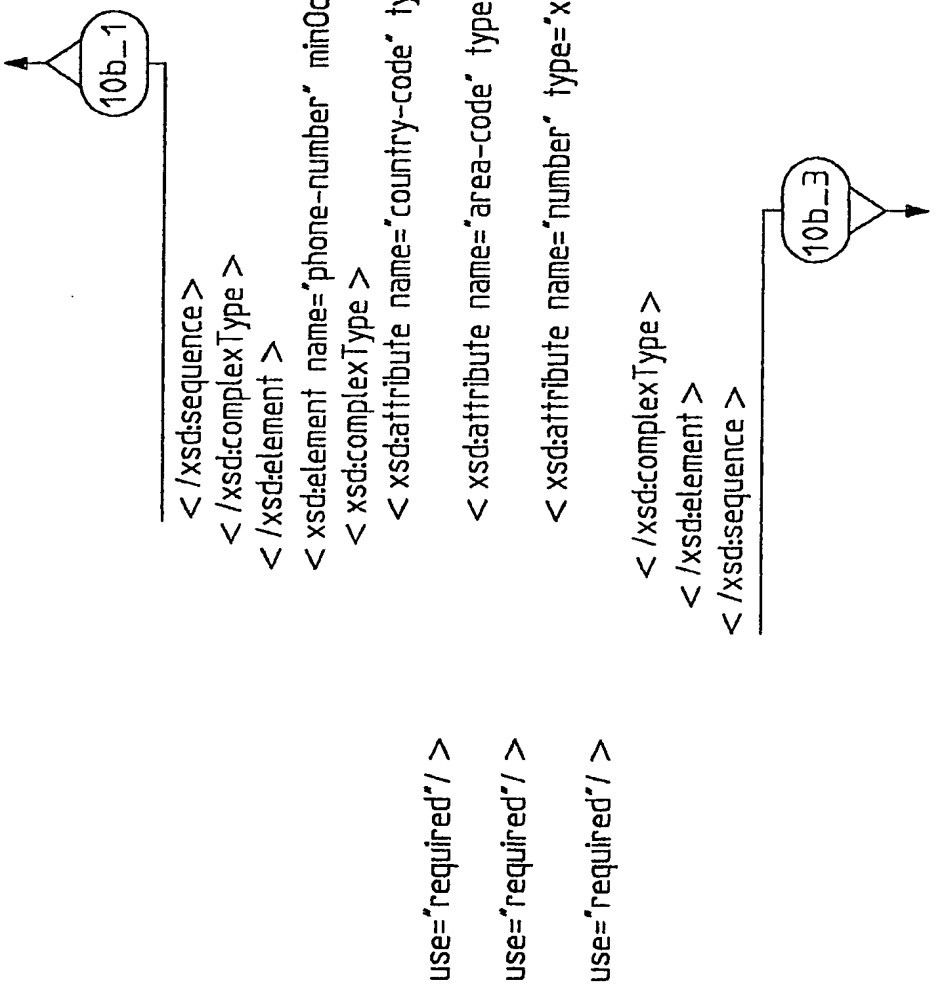

10b_1
< /xsd:sequence >
< /xsd:complexType >
< /xsd:element >
< xsd:element name="phone-number" minOccurs="0" >
< xsd:complexType >
< xsd:attribute name="country-code" type="xsd:int"
use="required"/ >
< xsd:attribute name="area-code" type="xsd:int"
use="required"/ >
< xsd:attribute name="number" type="xsd:int"
use="required"/ >
< /xsd:complexType >
< /xsd:element >
< /xsd:sequence >
10b_3

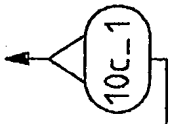
FIG. 10b_2

10b_2
< xsd:attribute name="type" type="xsd:string" use="required"/ >
< xsd:attribute name="carrier" type="xsd:string" use="optional"/ >
< /xsd:complexType >
< /xsd:element >
< /xsd:sequence >
< /xsd:complexType >
< /xsd:element >
< xsd:element name="recipient-data" >
< xsd:complexType >
< xsd:sequence >
< xsd:element name="xml-data" minOccurs="0" maxOccurs="unbounded" >
< xsd:complexType mixed="true" >
< xsd:sequence >
< xsd:any processContents="skip" minOccurs="0"
maxOccurs="unbounded"/ >
< /xsd:sequence >
< xsd:attribute name="name" type="xsd:string"use="required"/ >
< /xsd:complexType >
< /xsd:element_ >
FIG. 10b_3

```
< xsd:element name='merge-field' minOccurs='0' maxOccurs='unbounded'>
  < xsd:complexType mixed='true'>
    < xsd:sequence >
      < xsd:element name='merge-field' minOccurs='0'
< maxOccurs='unbounded'>
        < xsd:complexType mixed='true'>
          < xsd:sequence >
            < xsd:element name='merge-field' minOccurs='0'
< maxOccurs='unbounded'>
              < xsd:complexType mixed='true'>
                < xsd:sequence >
                < xsd:attribute name='name'
< type='xsd:string' use='required'/ >
                < xsd:attribute name='access'
< type='xsd:string' use='required'/ >
                < xsd:attribute name='type'
< type='xsd:string' use='required'/ >
              < /xsd:complexType >
            < /xsd:element>
          < /xsd:sequence >
< xsd:attribute name='name' type='xsd:string'
< use='required'/ >
< xsd:attribute name='access' type='xsd:string'
```

10c_2

FIG. 10c_1




```
< xsd:attribute name="type" type="xsd:string"
                                    < /xsd:complexType >
                                  < /xsd:element >
                                < /xsd:sequence >
                    < xsd:attribute name="name" type="xsd:string" use="required"/ >
                  < xsd:attribute name="access" type="xsd:string" use="required"/ >
                < xsd:attribute name="type" type="xsd:string" use="required"/ >
              < /xsd:complexType >
            < /xsd:element >
          < /xsd:sequence >
        < /xsd:complexType >
      < /xsd:element >
    < /xsd:sequence >
  < /xsd:complexType >
< /xsd:element >
< /xsd:sequence >
< /xsd:schema >
```

< use="required"/ >

FIG. 10c_1

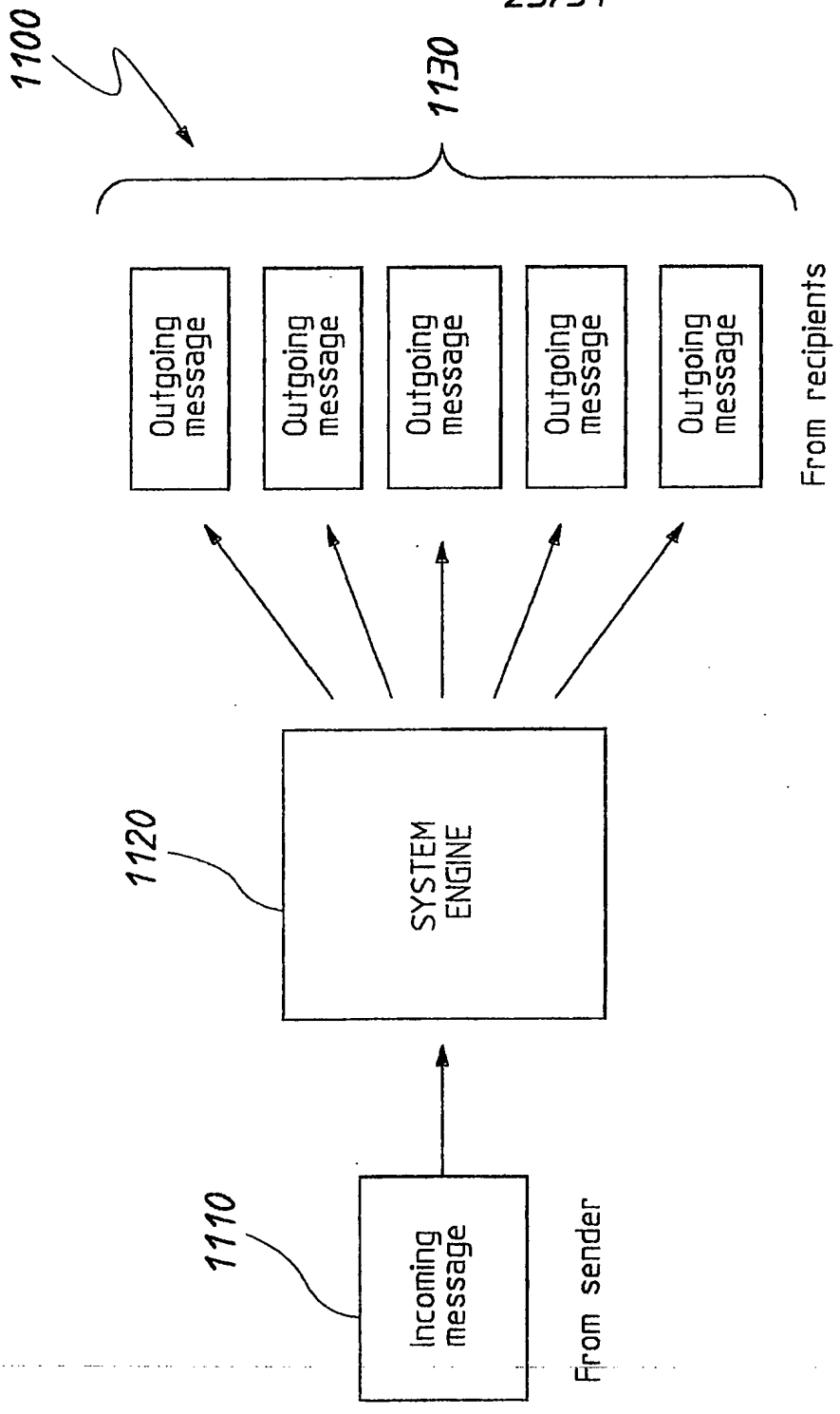

1100
1130
Outgoing message
Outgoing message
Outgoing message
Outgoing message
Outgoing message
From recipients
1120
SYSTEM ENGINE
1110
Incoming message
From sender

FIG. 11

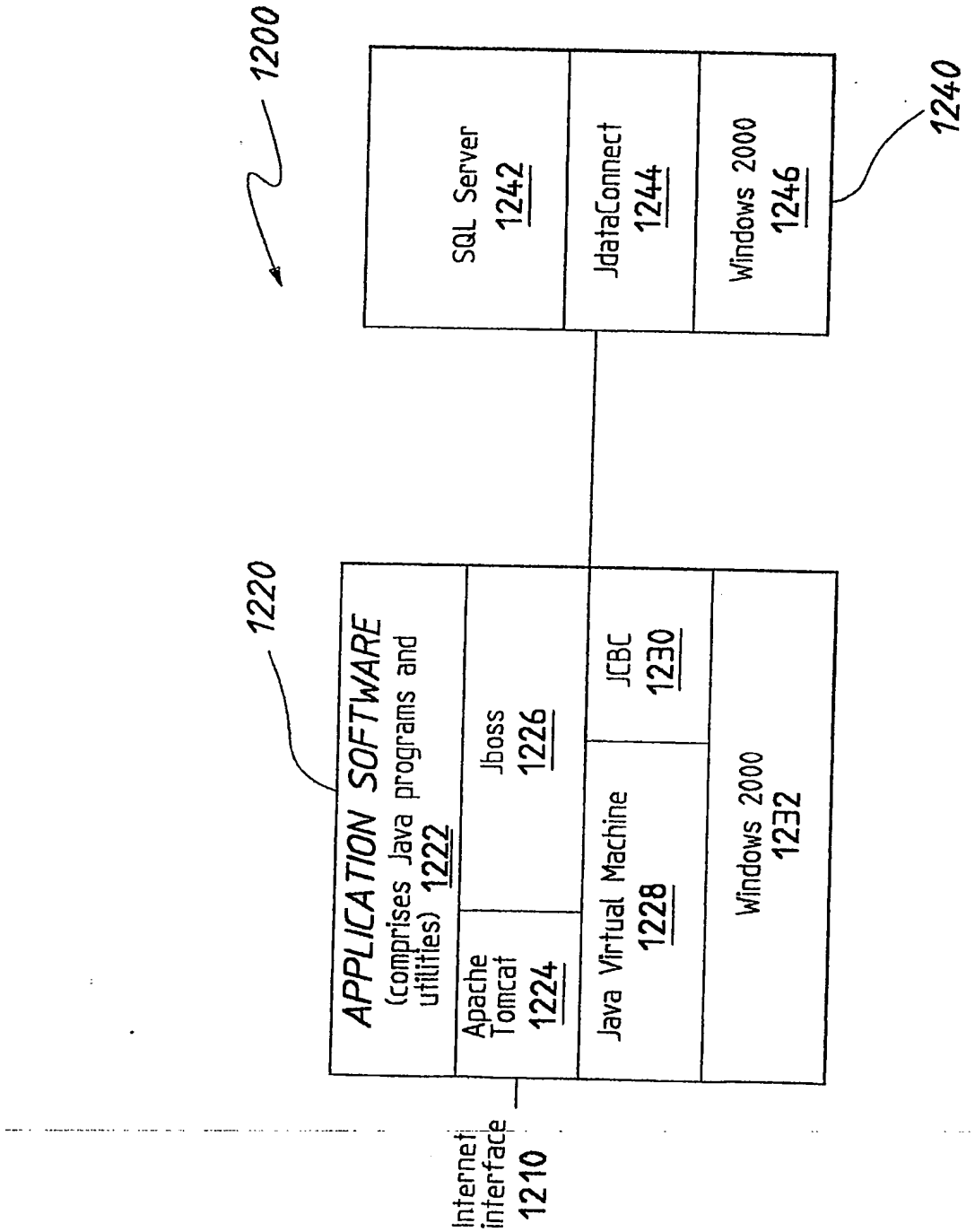

1200
SQL Server
1242
JdataConnect
1244
Windows 2000
1246
1240
1220
APPLICATION SOFTWARE
(comprises Java programs and utilities) 1222
Jboss
1226
Apache Tomcat
1224
JCBC
1230
Java Virtual Machine
1228
Windows 2000
1232
Internet interface
1210

FIG. 12

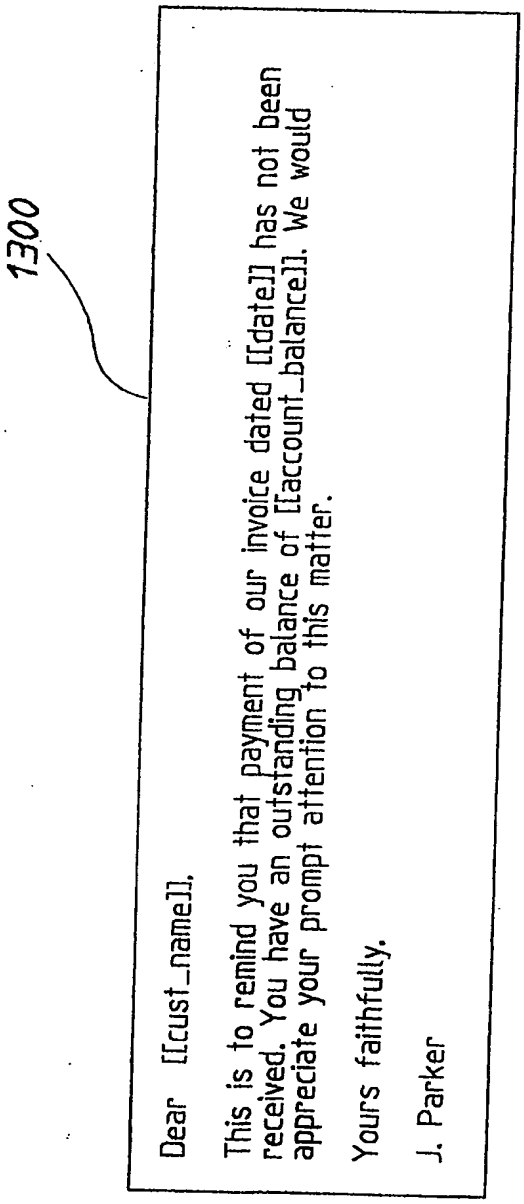

1300
Dear [[cust_name]],
This is to remind you that payment of our invoice dated [[date]] has not been received. You have an outstanding balance of [[account_balance]]. We would appreciate your prompt attention to this matter.
Yours faithfully,
J. Parker

FIG. 13

1400

Attempt	Transmission 1	Transmission 2	Transmission 3
1	Fax	E-mail	-
2	Paper	SMS	-
3	-	-	-

FIG. 14

1500

Main Menu Option	Tab Option	Normal Customer		Control Customer	
		Standard User	Administrator	Standard User	Administrator
Job Submission		Yes	Yes	Yes [1]	Yes [1]
Status report		Yes	Yes	Yes [1]	Yes [1]
Administration	Account	View	View	View [1]	Create, view, alter [1]
Administration	User	View 2	Create, view, alter	View [1] [2]	Create, view, alter [1]
Customers		No	No	View	Create, view, alter
Job control		No	No		Yes
Job configuration		No	No	View [1]	Create, view, alter [1]
Console		No	No	Yes	Yes
Proxy setting		No	No	Yes	Yes

FIG. 15

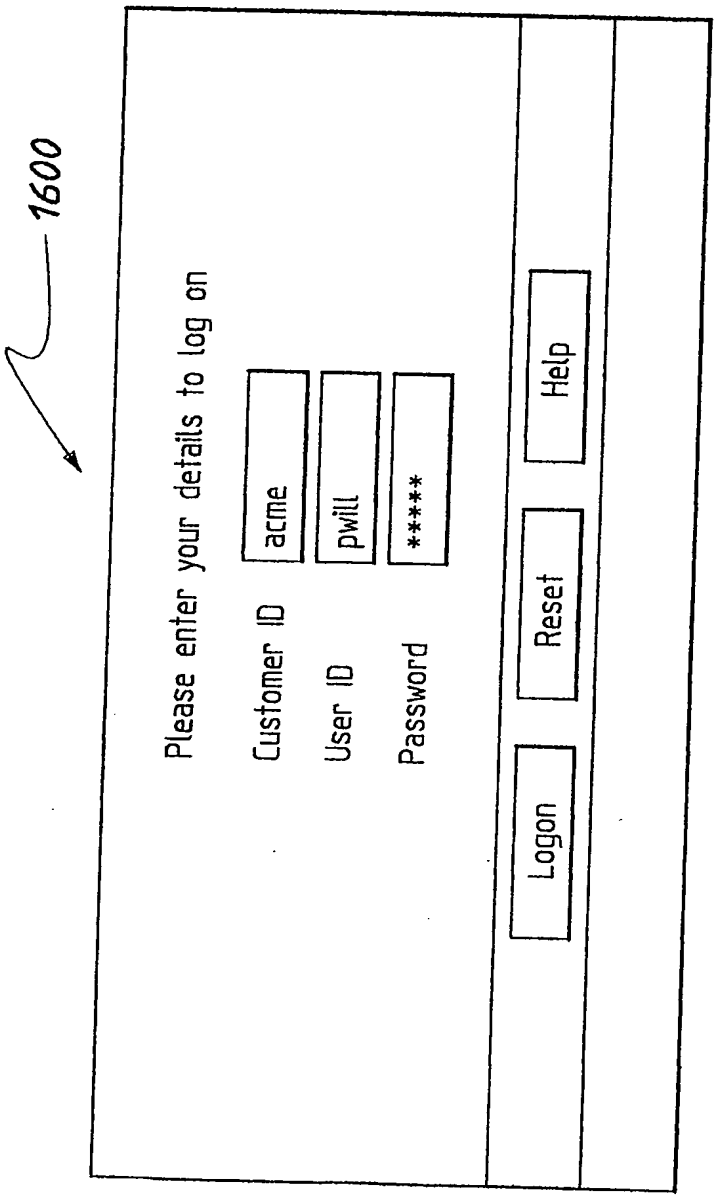

1600
Please enter your details to log on
Customer ID
acme
User ID
pwill
Password
*****
Help
Reset
Logon

FIG. 16

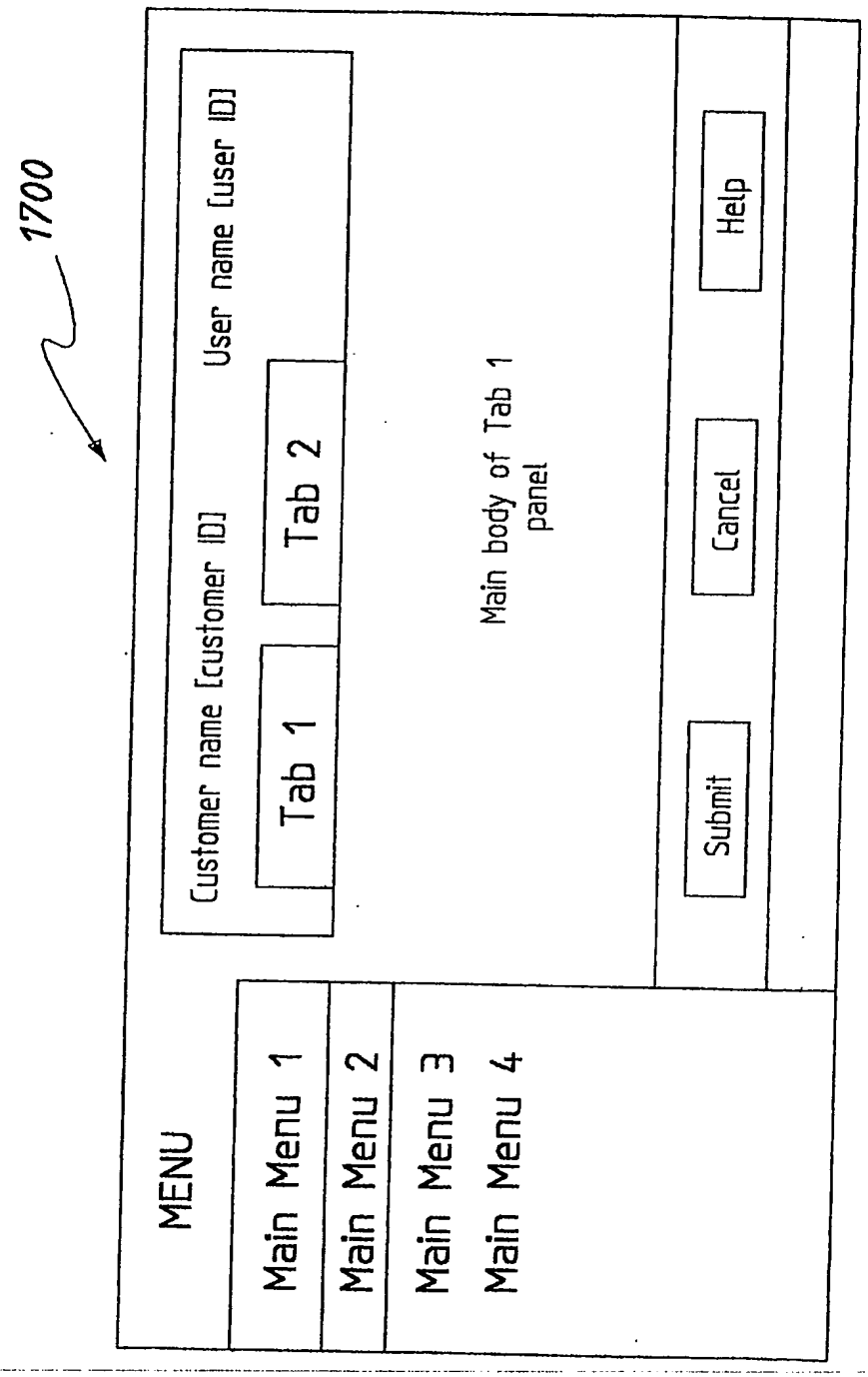

1700
MENU
Main Menu 1
Main Menu 2
Main Menu 3
Main Menu 4
Customer name [customer ID]
User name [user ID]
Tab 1
Tab 2
Main body of Tab 1 panel
Submit
Cancel
Help

FIG. 17

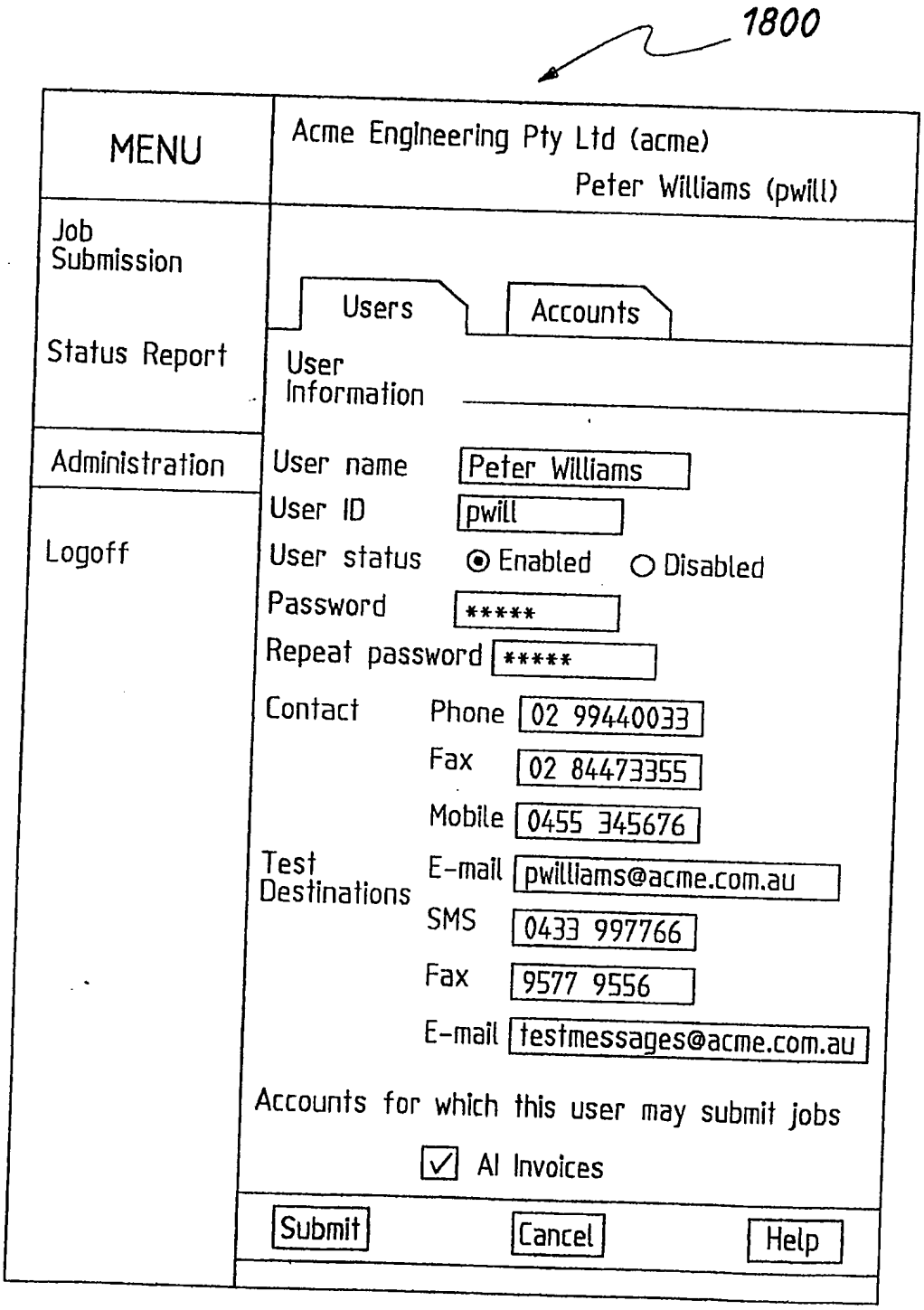

1800
MENU
Acme Engineering Pty Ltd (acme)
Peter Williams (pwill)
Job Submission
Status Report
Administration
Logoff
Users
Accounts
User Information
User name
Peter Williams
User ID
pwill
User status
Enabled
Disabled
Password
*****
Repeat password
*****
Contact
Phone
02 99440033
Fax
02 84473355
Mobile
0455 345676
Test Destinations
E-mail
pwilliams@acme.com.au
SMS
0433 997766
Fax
9577 9556
E-mail
testmessages@acme.com.au
Accounts for which this user may submit jobs
Al Invoices
Submit
Cancel
Help

FIG. 18

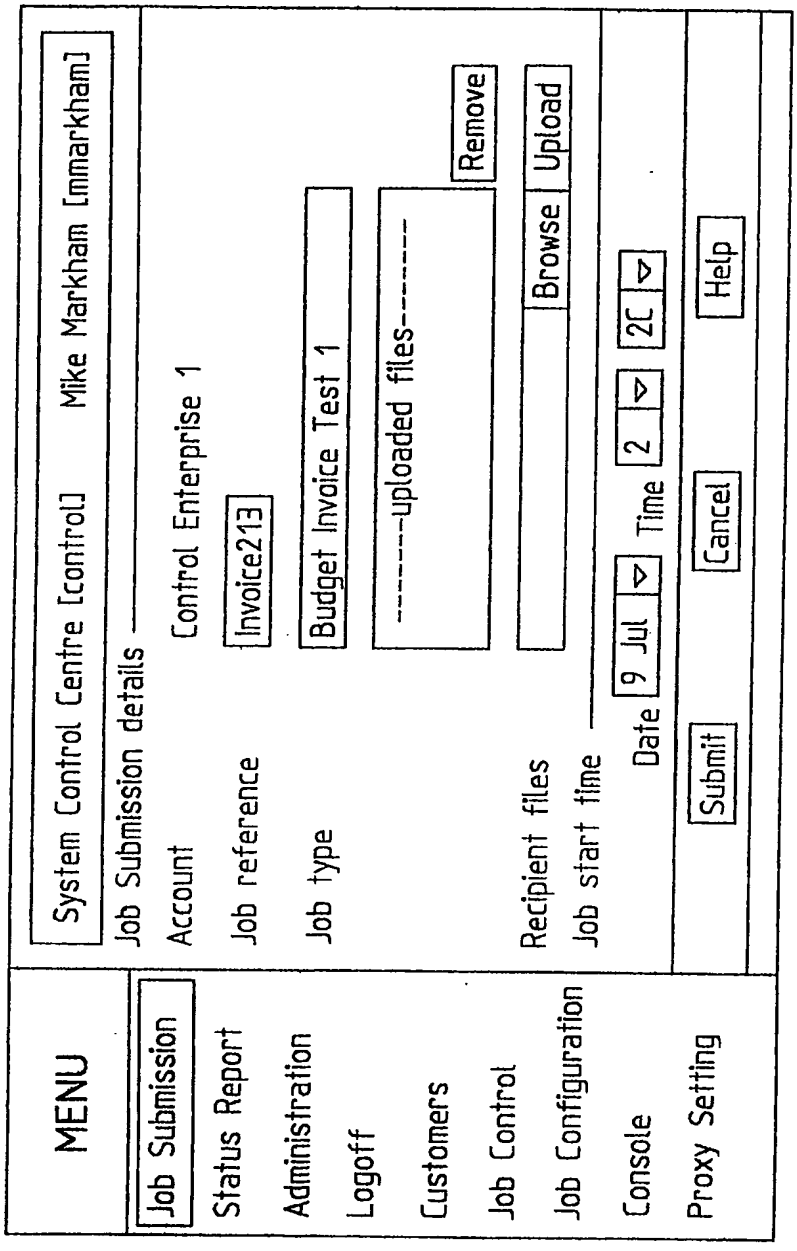

1900
MENU
Job Submission
Status Report
Administration
Logoff
Customers
Job Control
Job Configuration
Console
Proxy Setting
System Control Centre [control]
Mike Markham [mmarkham]
Job Submission details
Account
Control Enterprise 1
Job reference
Invoice213
Job type
Budget Invoice Test 1
------uploaded files------
Remove
Recipient files
Browse
Upload
Job start time
Date
9 Jul
Time
2
2C
Submit
Cancel
Help

FIG. 19

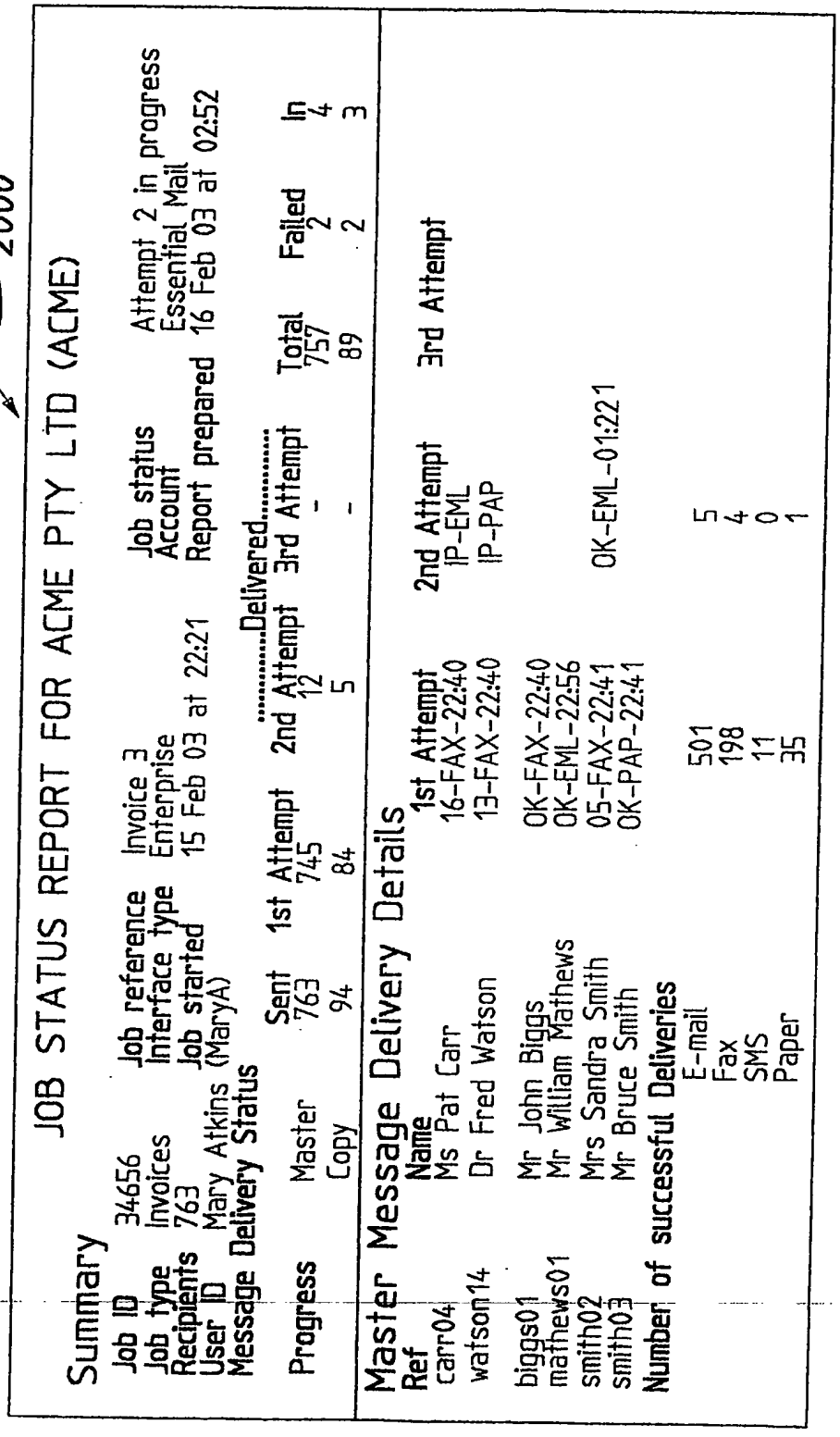

2000
JOB STATUS REPORT FOR ACME PTY LTD (ACME)
Summary
Job ID 34656
Job type Invoices
Recipients 763
User ID Mary Atkins (MaryA)
Job reference Invoice 3
Interface type Enterprise
Job started 15 Feb 03 at 22:21
Job status Attempt 2 in progress
Account Essential Mail
Report prepared 16 Feb 03 at 02:52
Message Delivery Status
Progress
Sent
1st Attempt
2nd Attempt
Delivered
3rd Attempt
Total
Failed
In
Master 763 745 12 - 757 2 4
Copy 94 84 5 - 89 2 3
Master Message Delivery Details
Ref
Name
1st Attempt
2nd Attempt
3rd Attempt
carr04 Ms Pat Carr 16-FAX-22:40 IP-EML
watson14 Dr Fred Watson 13-FAX-22:40 IP-PAP
biggs01 Mr John Biggs OK-FAX-22:40
mathews01 Mr William Mathews OK-EML-22:56
smith02 Mrs Sandra Smith 05-FAX-22:41 OK-EML-01:221
smith03 Mr Bruce Smith OK-PAP-22:41
Number of successful Deliveries
E-mail 501 5
Fax 198 4
SMS 11 0
Paper 35 1

FIG.20a

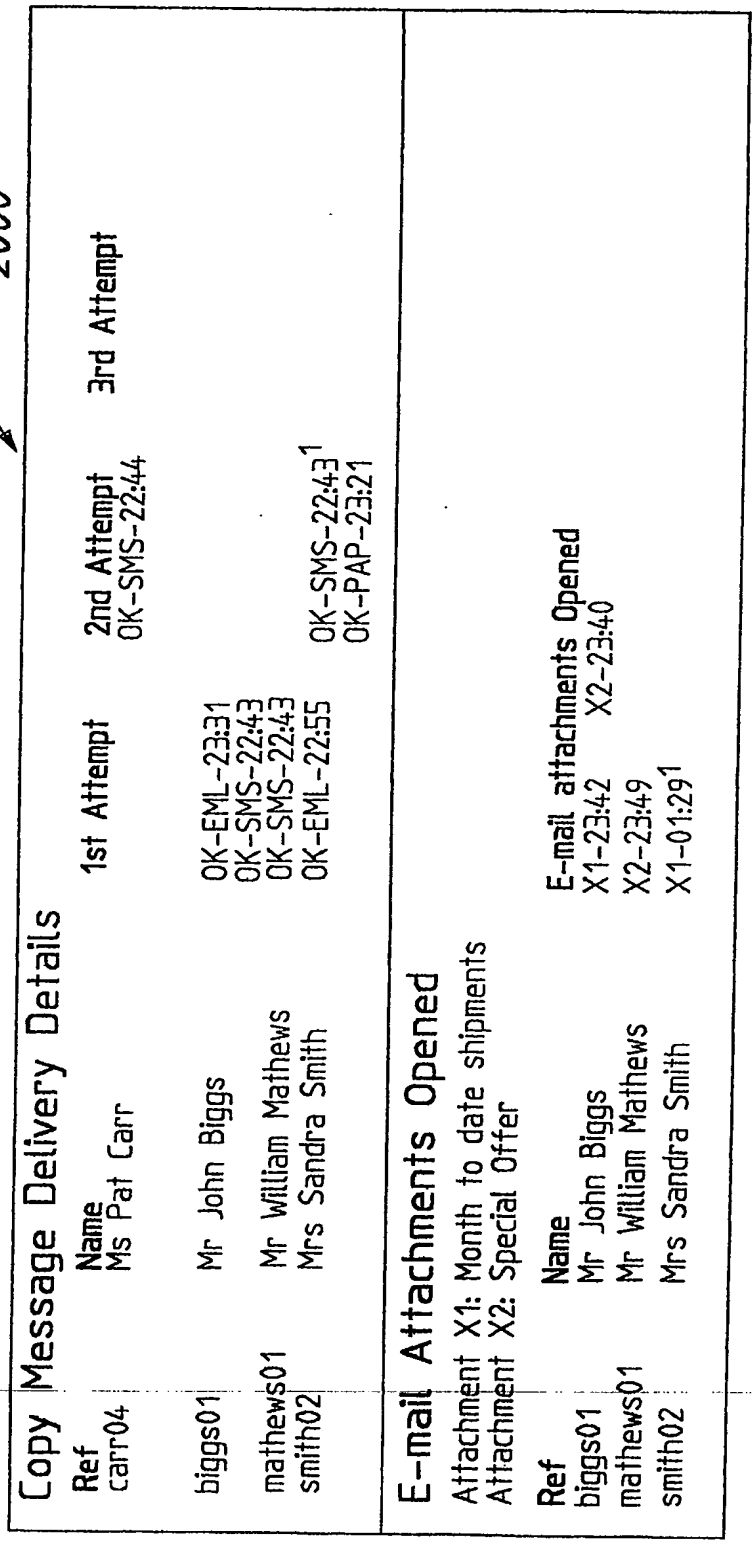

2000
Copy Message Delivery Details
Ref
Name
1st Attempt
2nd Attempt
3rd Attempt
carr04
Ms Pat Carr
OK-SMS-22:44
biggs01
Mr John Biggs
OK-EML-23:31
OK-SMS-22:43
mathews01
Mr William Mathews
OK-SMS-22:43
smith02
Mrs Sandra Smith
OK-EML-22:55
OK-SMS-22:43[1]
OK-PAP-23:21
E-mail Attachments Opened
Attachment X1: Month to date shipments
Attachment X2: Special Offer
Ref
Name
E-mail attachments Opened
biggs01
Mr John Biggs
X1-23:42 X2-23:40
mathews01
Mr William Mathews
X2-23:49
smith02
Mrs Sandra Smith
X1-01:29[1]

FIG.20b

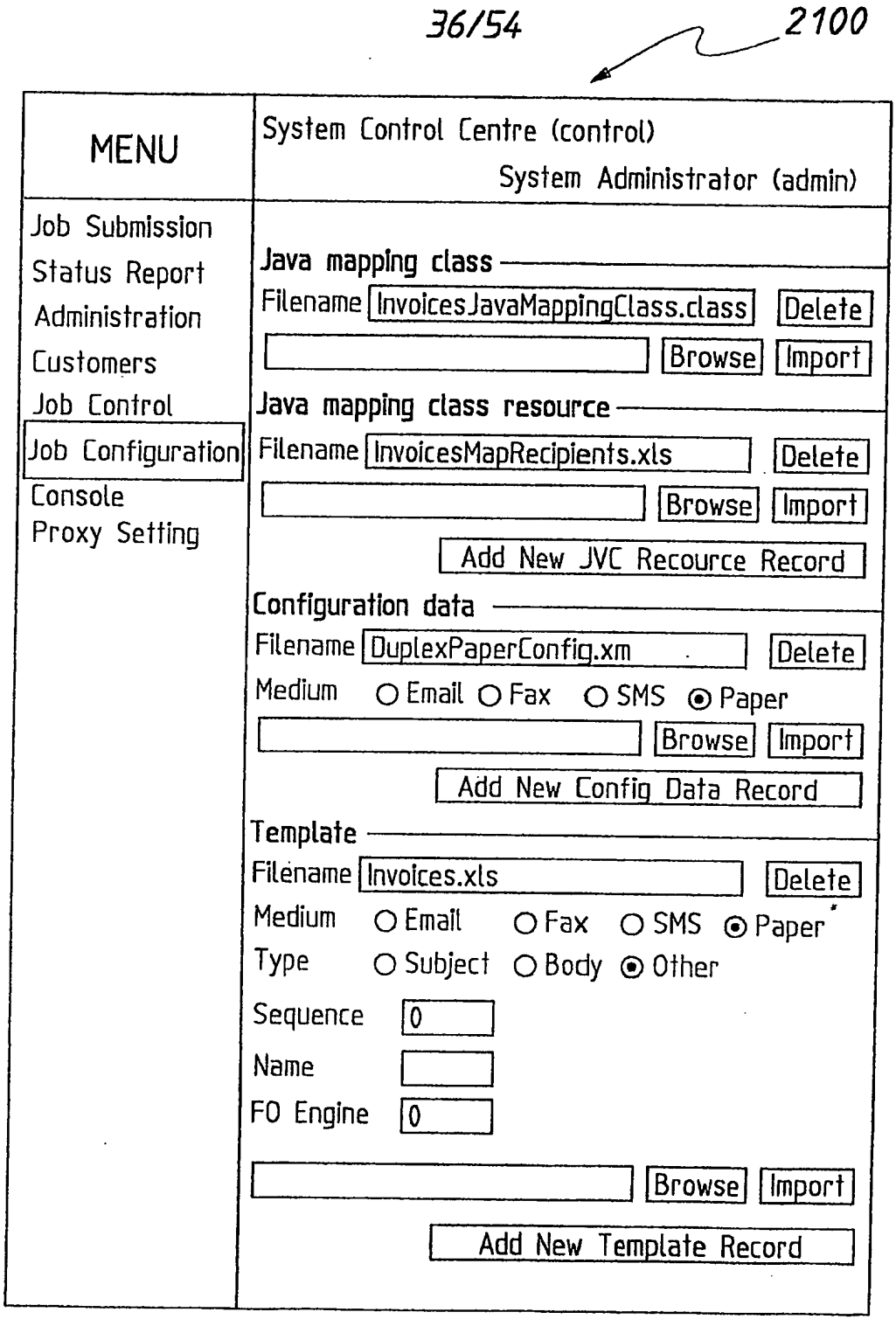

2100
MENU
System Control Centre (control)
System Administrator (admin)
Job Submission
Status Report
Administration
Customers
Job Control
Job Configuration
Console
Proxy Setting
Java mapping class
Filename InvoicesJavaMappingClass.class
Delete
Browse
Import
Java mapping class resource
Filename InvoicesMapRecipients.xls
Delete
Browse
Import
Add New JVC Recource Record
Configuration data
Filename DuplexPaperConfig.xm
Delete
Medium Email Fax SMS Paper
Browse
Import
Add New Config Data Record
Template
Filename Invoices.xls
Delete
Medium Email Fax SMS Paper
Type Subject Body Other
Sequence 0
Name
FO Engine 0
Browse
Import
Add New Template Record

FIG.21a

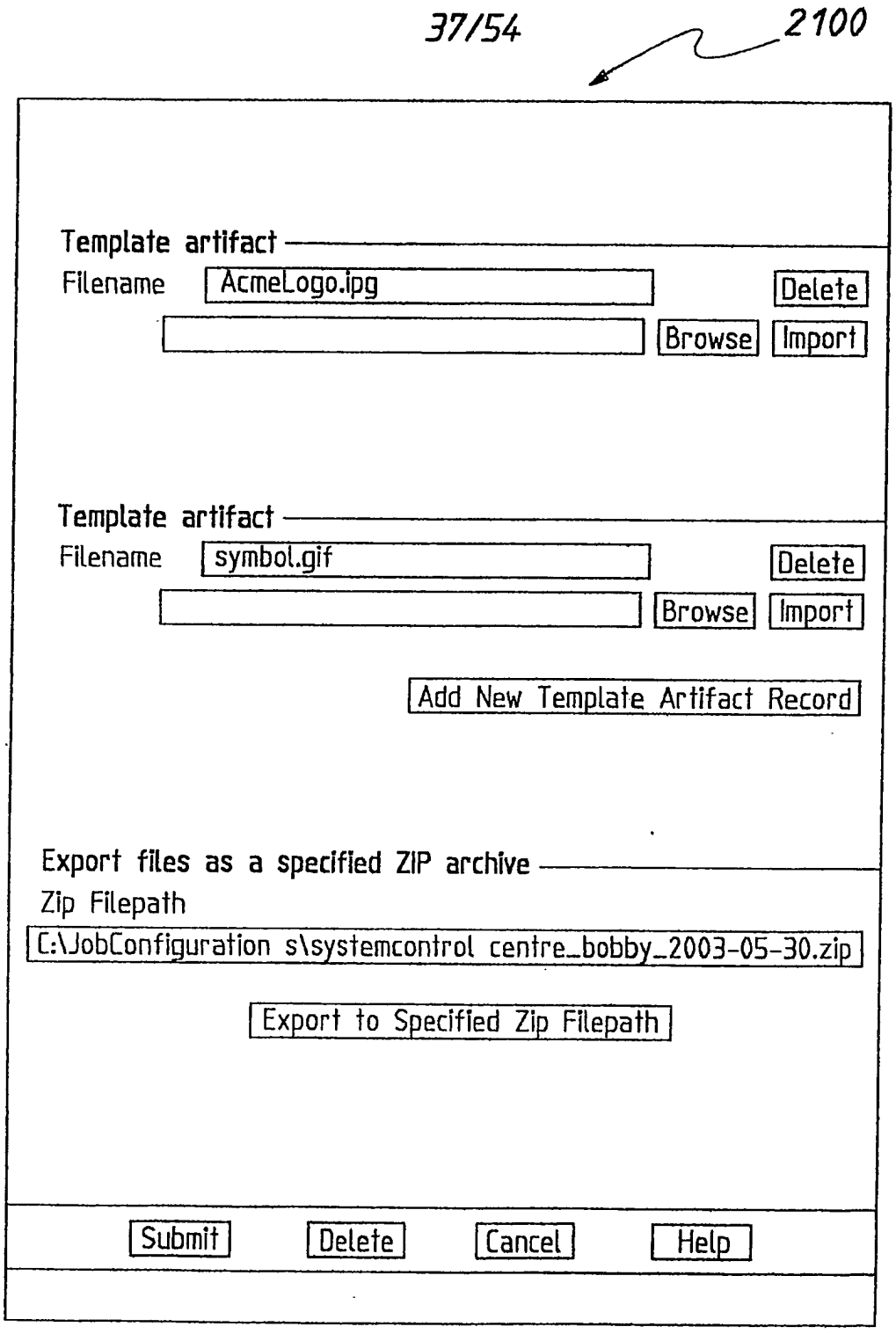

2100
Template artifact
Filename
AcmeLogo.jpg
Delete
Browse
Import
Template artifact
Filename
symbol.gif
Delete
Browse
Import
Add New Template Artifact Record
Export files as a specified ZIP archive
Zip Filepath
C:\JobConfiguration s\systemcontrol centre_bobby_2003-05-30.zip
Export to Specified Zip Filepath
Submit
Delete
Cancel
Help

FIG.21b

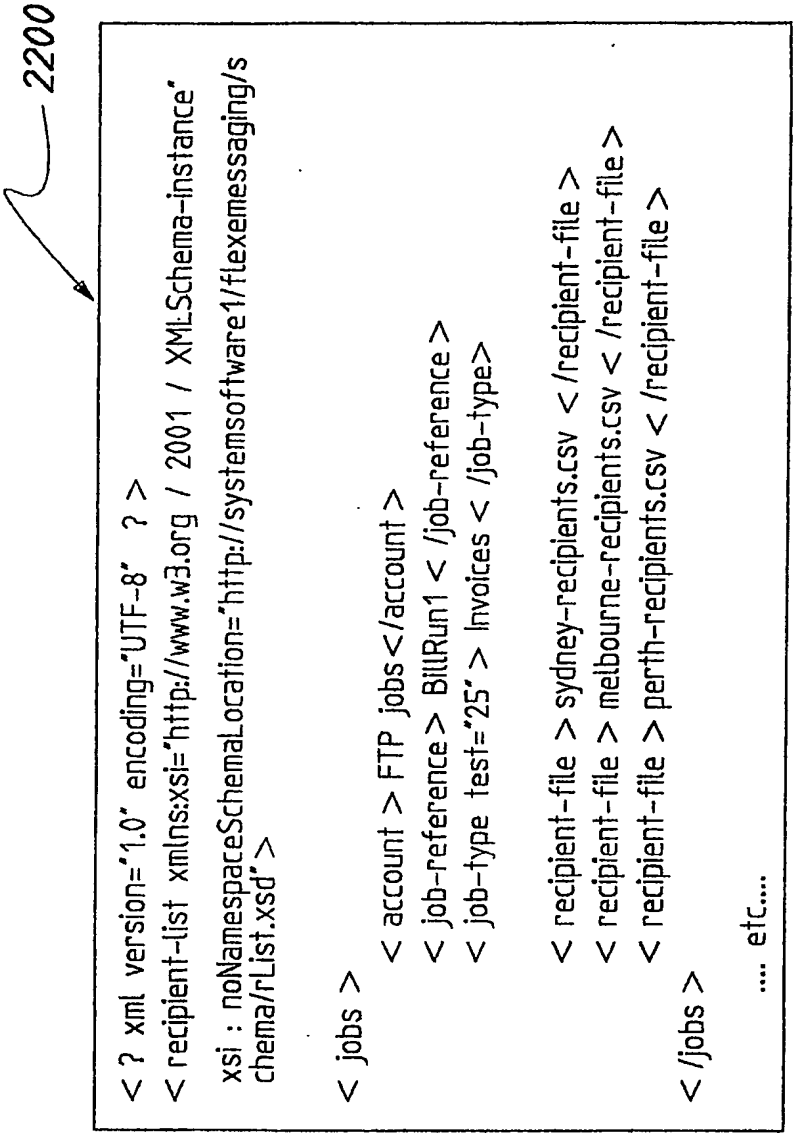

2200
< ? xml version="1.0" encoding="UTF-8" ? >
< recipient-list xmlns:xsi="http://www.w3.org / 2001 / XMLSchema-instance"
xsi : noNamespaceSchemaLocation="http://systemsoftware1/flexemessaging/schema/rList.xsd" >
< jobs >
< account > FTP jobs </account >
< job-reference > BillRun1 < /job-reference >
< job-type test="25" > Invoices < /job-type>
< recipient-file > sydney-recipients.csv < /recipient-file >
< recipient-file > melbourne-recipients.csv < /recipient-file >
< recipient-file > perth-recipients.csv < /recipient-file >
< /jobs >
.... etc....

FIG.22

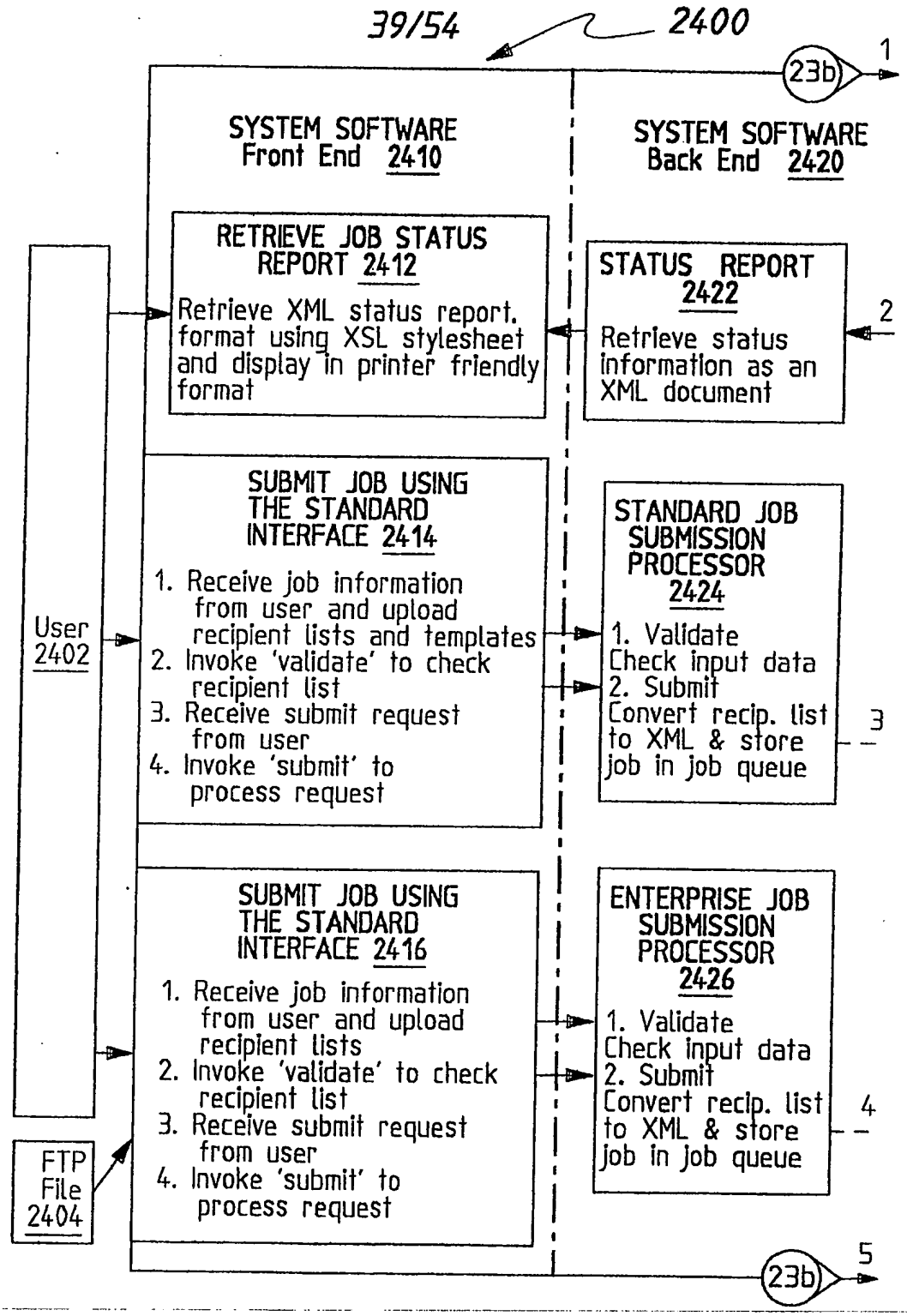

2400
23b
1
SYSTEM SOFTWARE
Front End 2410
SYSTEM SOFTWARE
Back End 2420
RETRIEVE JOB STATUS
REPORT 2412
Retrieve XML status report, format using XSL stylesheet and display in printer friendly format
STATUS REPORT
2422
Retrieve status information as an XML document
2
SUBMIT JOB USING
THE STANDARD
INTERFACE 2414
1. Receive job information from user and upload recipient lists and templates
2. Invoke 'validate' to check recipient list
3. Receive submit request from user
4. Invoke 'submit' to process request
STANDARD JOB
SUBMISSION
PROCESSOR
2424
1. Validate
Check input data
2. Submit
Convert recip. list to XML & store job in job queue
3
User
2402
SUBMIT JOB USING
THE STANDARD
INTERFACE 2416
1. Receive job information from user and upload recipient lists
2. Invoke 'validate' to check recipient list
3. Receive submit request from user
4. Invoke 'submit' to process request
ENTERPRISE JOB
SUBMISSION
PROCESSOR
2426
1. Validate
Check input data
2. Submit
Convert recip. list to XML & store job in job queue
4
FTP
File
2404
23b
5

FIG.23a

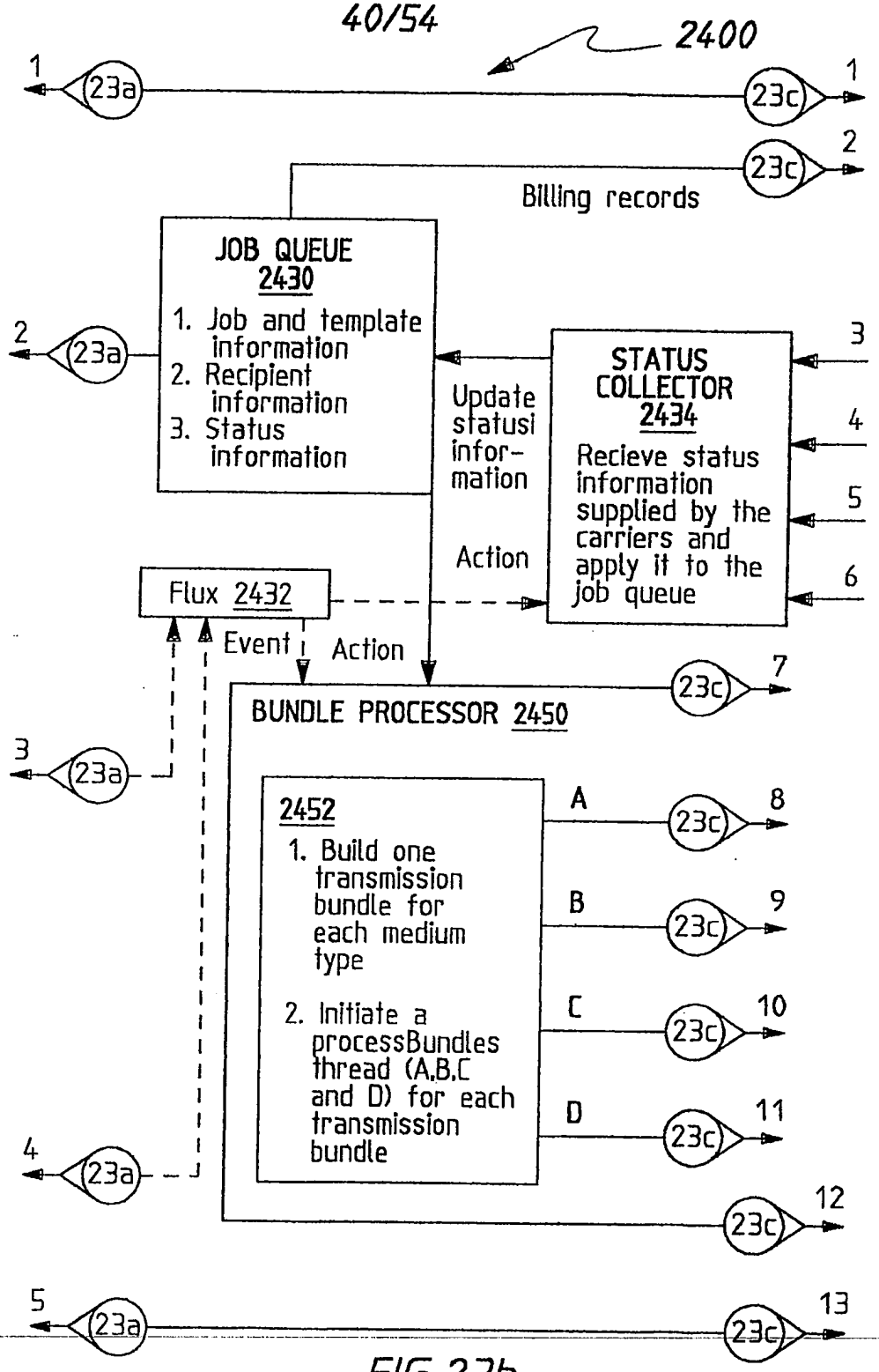

2400
1
23a
23c
1
2
23c
Billing records
JOB QUEUE
2430
1. Job and template information
2. Recipient information
3. Status information
2
23a
Update statusi infor-mation
STATUS COLLECTOR
2434
Recieve status information supplied by the carriers and apply it to the job queue
3
4
5
6
Action
Flux 2432
Event
Action
23c
7
BUNDLE PROCESSOR 2450
3
23a
2452
1. Build one transmission bundle for each medium type
2. Initiate a processBundles thread (A,B,C and D) for each transmission bundle
A
B
C
D
23c
8
9
10
11
4
23a
23c
12
5
23a
23c
13

FIG.23b

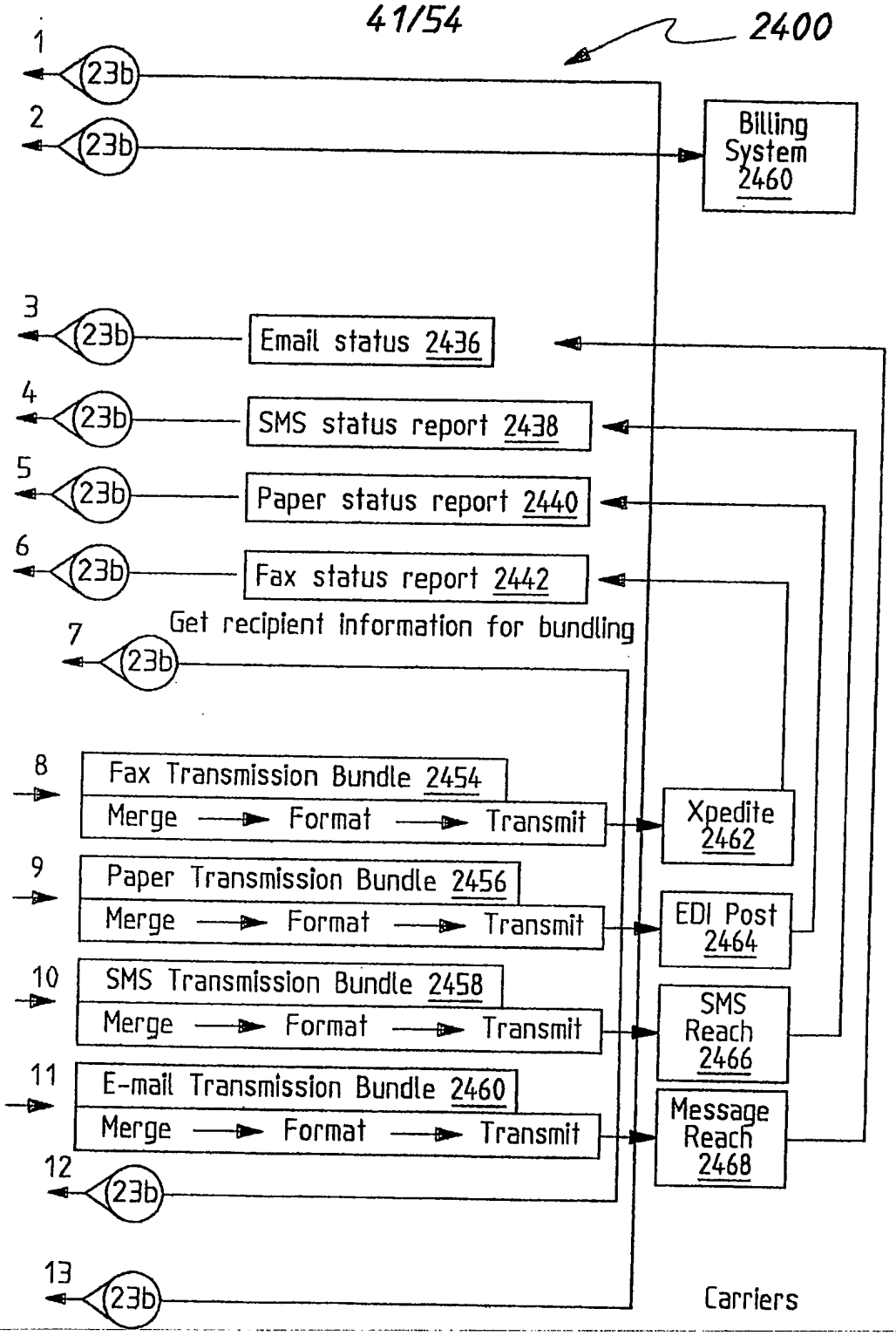

2400
1
23b
2
23b
Billing System 2460
3
23b
Email status 2436
4
23b
SMS status report 2438
5
23b
Paper status report 2440
6
23b
Fax status report 2442
Get recipient information for bundling
7
23b
8
Fax Transmission Bundle 2454
Merge → Format → Transmit
9
Paper Transmission Bundle 2456
Merge → Format → Transmit
10
SMS Transmission Bundle 2458
Merge → Format → Transmit
11
E-mail Transmission Bundle 2460
Merge → Format → Transmit
12
23b
13
23b
Xpedite 2462
EDI Post 2464
SMS Reach 2466
Message Reach 2468
Carriers

FIG.23c

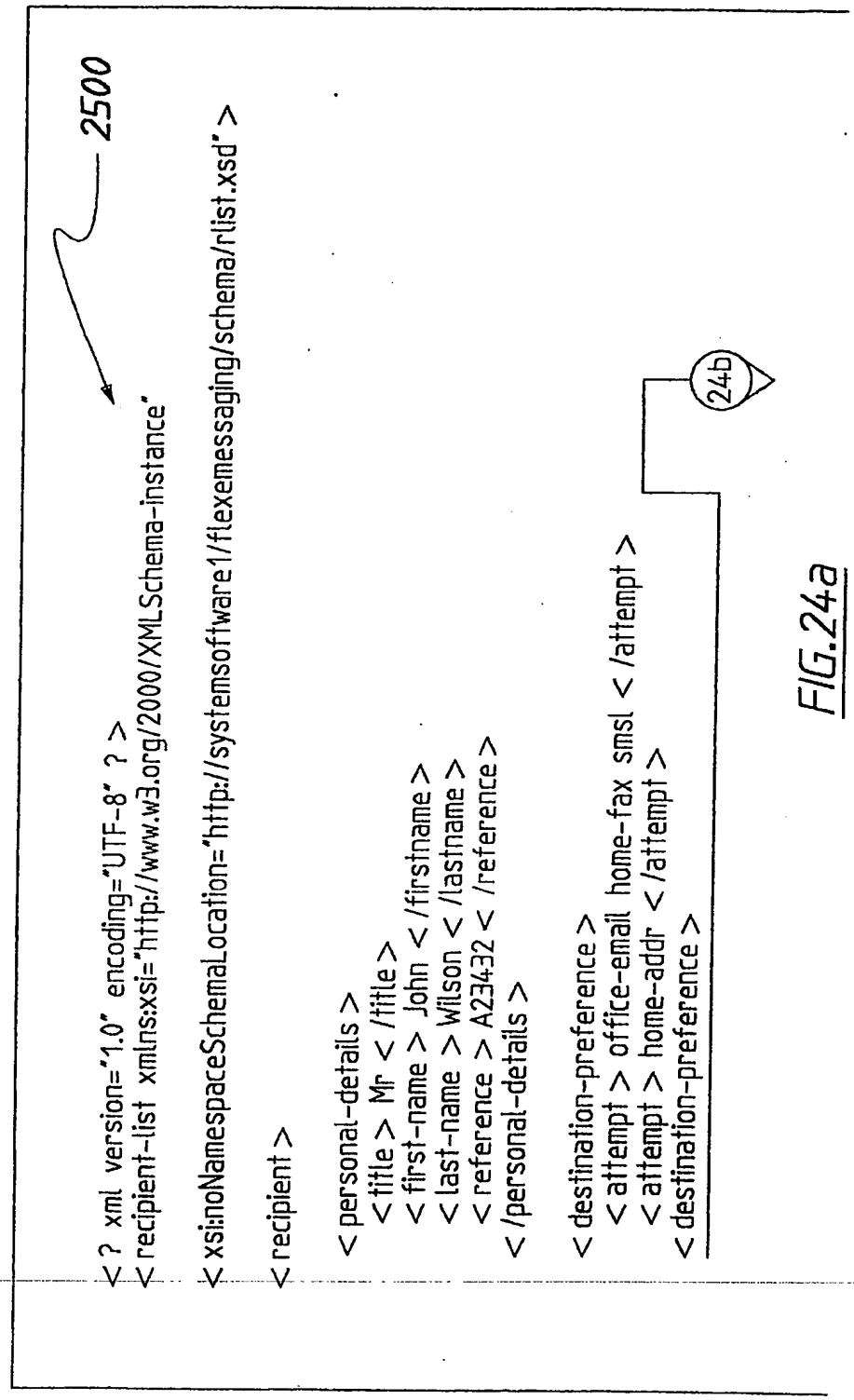

2500
< ? xml version="1.0" encoding="UTF-8" ? >
< recipient-list xmlns:xsi="http://www.w3.org/2000/XMLSchema-instance"
< xsi:noNamespaceSchemaLocation="http://systemsoftware1/flexemessaging/schema/rlist.xsd" >
< recipient >
< personal-details >
< title > Mr < /title >
< first-name > John < /first-name >
< last-name > Wilson < /last-name >
< reference > A23432 < /reference >
< /personal-details >
< destination-preference >
< attempt > office-email home-fax sms1 < /attempt >
< attempt > home-addr < /attempt >
< destination-preference >
24b

FIG.24a

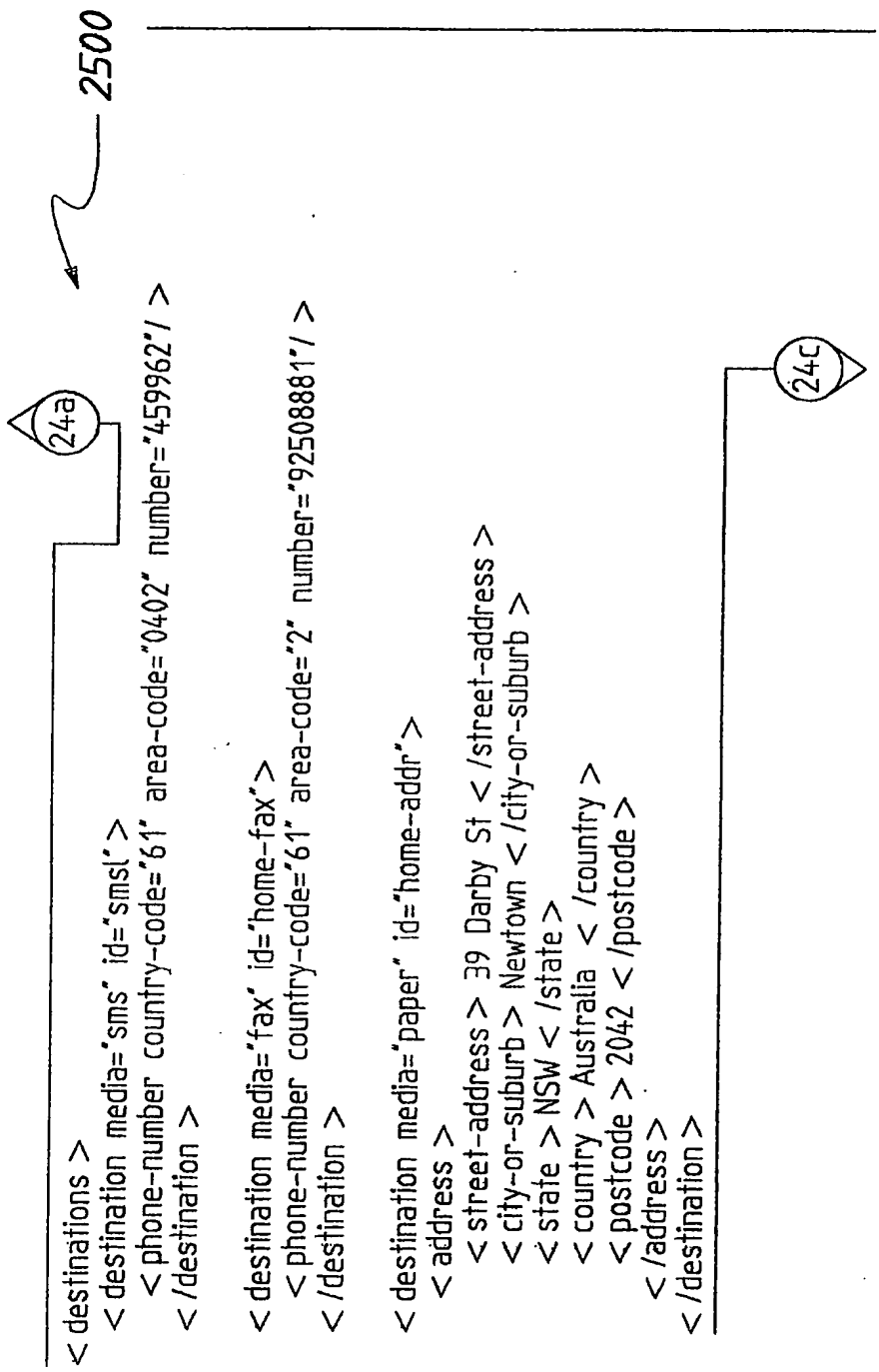

2500
24a
24c
< destinations >
< destination media="sms" id="sms1" >
< phone-number country-code="61" area-code="0402" number="459962" / >
< /destination >
< destination media="fax" id="home-fax" >
< phone-number country-code="61" area-code="2" number="92508881" / >
< /destination >
< destination media="paper" id="home-addr" >
< address >
< street-address > 39 Darby St < /street-address >
< city-or-suburb > Newtown < /city-or-suburb >
< state > NSW < /state >
< country > Australia < /country >
< postcode > 2042 < /postcode >
< /address >
< /destination >

FIG.24b

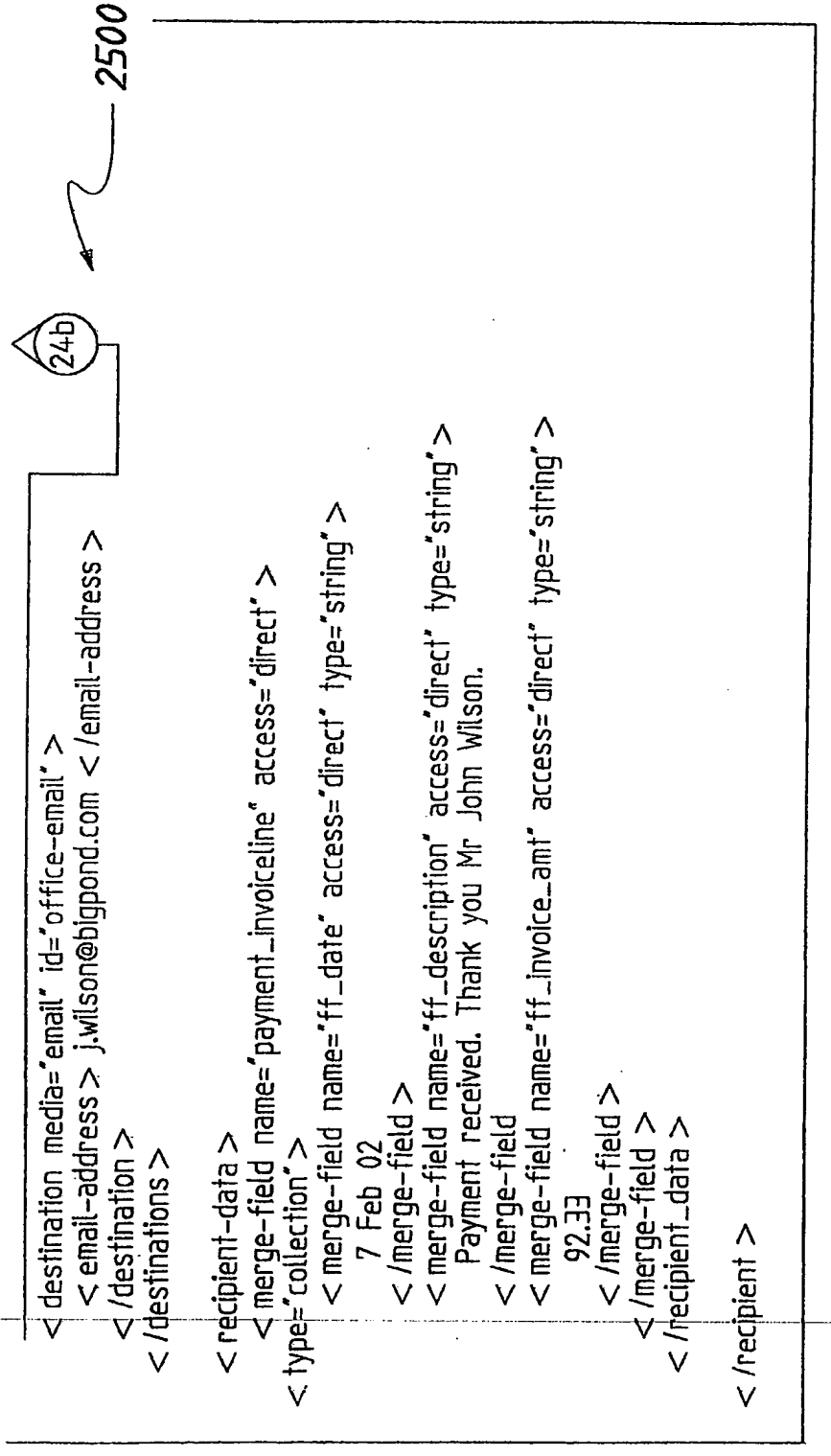

2500
24b
< destination media='email' id='office-email' >
< email-address > j.wilson@bigpond.com < /email-address >
< /destination >
< /destinations >
< recipient-data >
< merge-field name='payment_invoiceline' access='direct' >
type='collection' >
< merge-field name='ff_date' access='direct' type='string' >
7 Feb 02
< /merge-field >
< merge-field name='ff_description' access='direct' type='string' >
Payment received. Thank you Mr John Wilson.
< /merge-field
< merge-field name='ff_invoice_amt' access='direct' type='string' >
92.33
< /merge-field >
< /merge-field >
< /recipient_data >
< /recipient >

FIG.24c

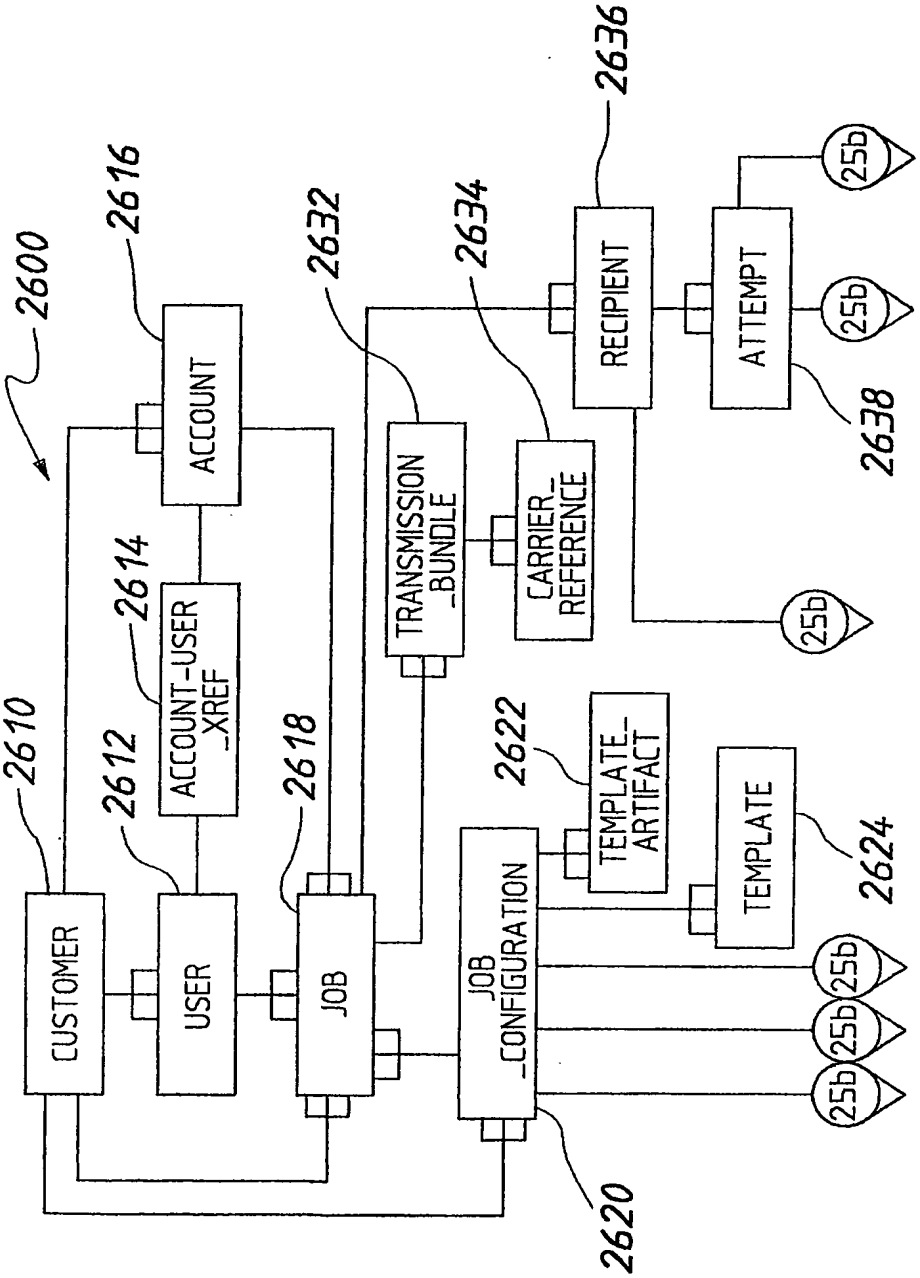

2600
2610
CUSTOMER
2612
USER
2614
ACCOUNT-USER _XREF
2616
ACCOUNT
2618
JOB
2620
2622
TEMPLATE_ ARTIFACT
JOB _CONFIGURATION
2624
TEMPLATE
2632
TRANSMISSION _BUNDLE
2634
CARRIER_ REFERENCE
2636
RECIPIENT
ATTEMPT
2638
25b

FIG.25a

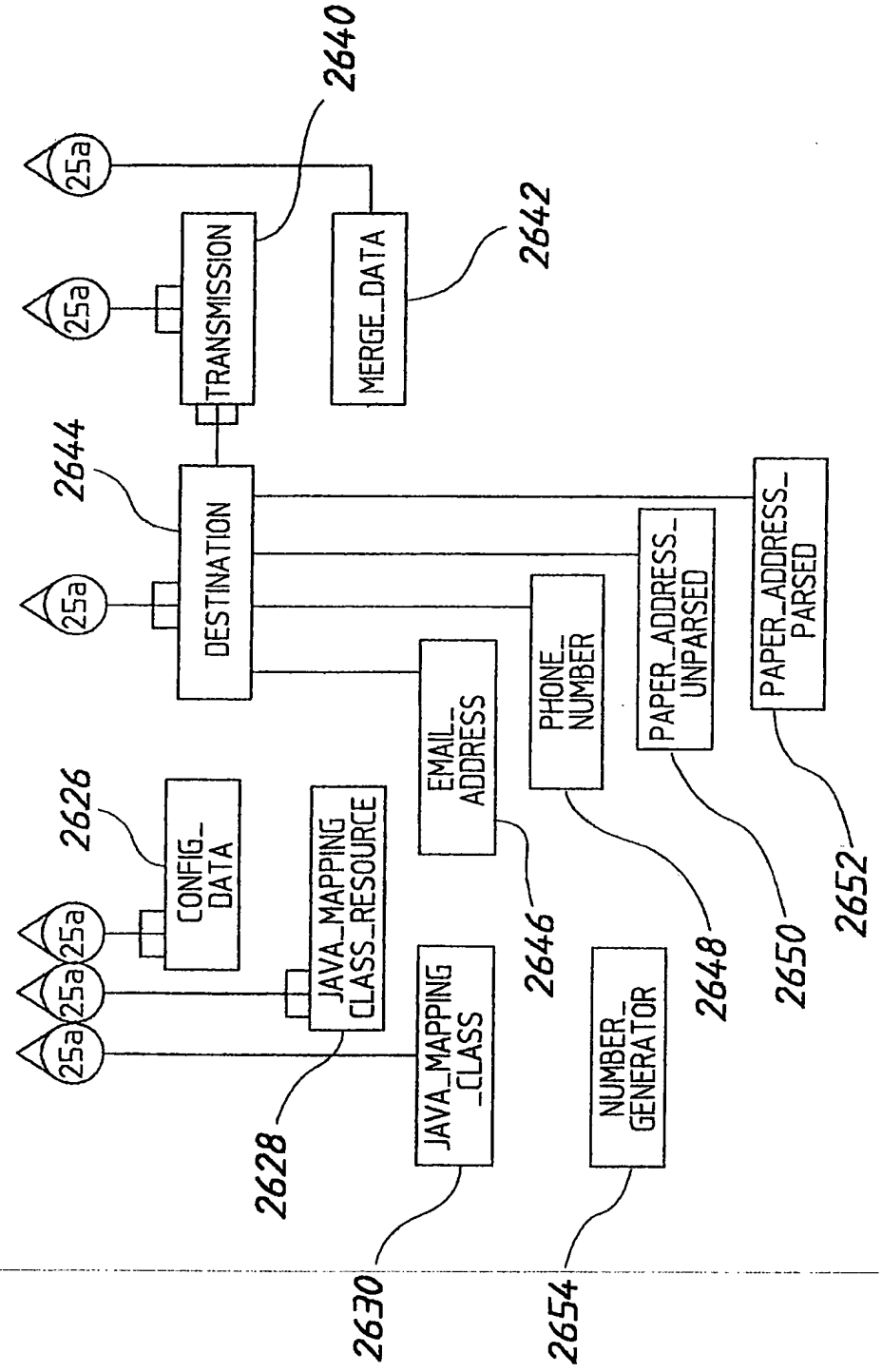

2640
25a
TRANSMISSION
MERGE_DATA
2642
2644
DESTINATION
PAPER_ADDRESS_PARSED
PAPER_ADDRESS_UNPARSED
PHONE_NUMBER
EMAIL_ADDRESS
2626
CONFIG_DATA
JAVA_MAPPING_CLASS_RESOURCE
JAVA_MAPPING_CLASS
NUMBER_GENERATOR
2628
2630
2646
2648
2650
2652
2654

FIG.25b

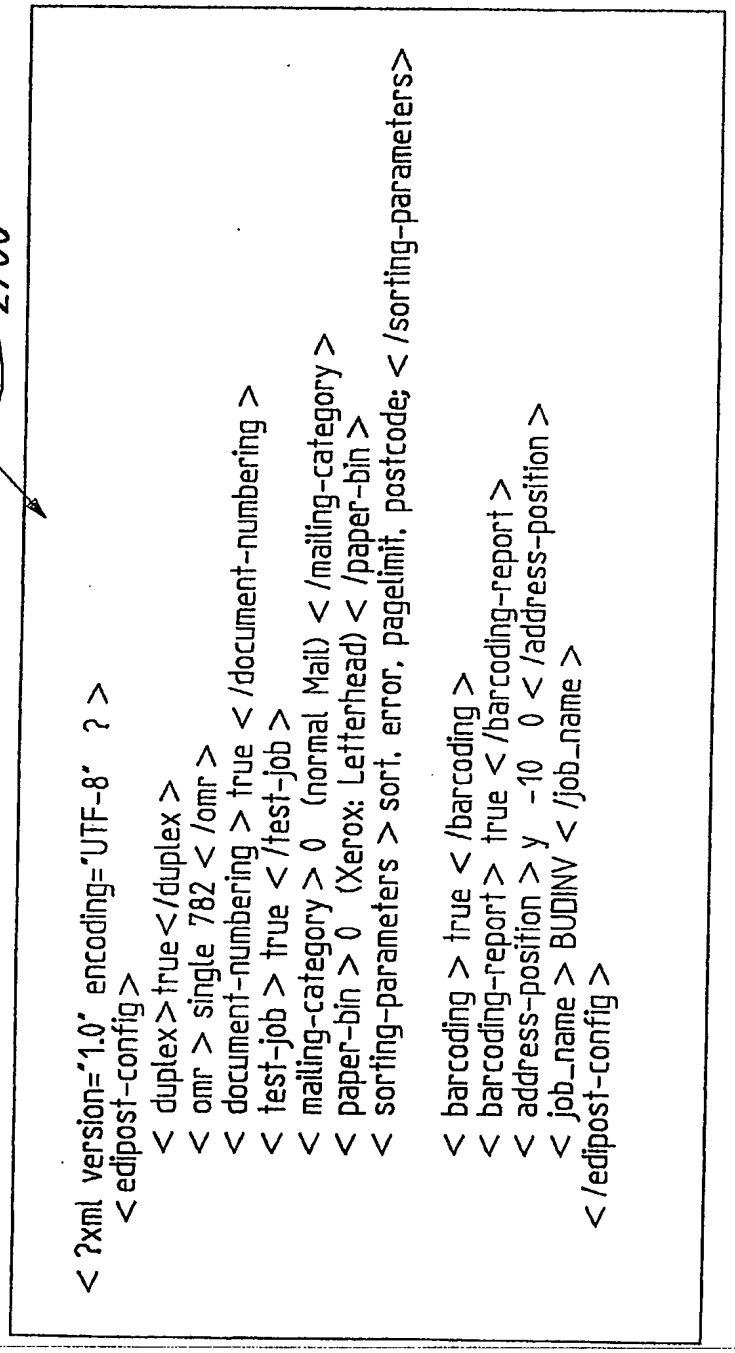

2700
< ?xml version="1.0" encoding="UTF-8" ? >
< edipost-config >
< duplex > true </duplex >
< omr > single 782 < /omr >
< document-numbering > true < /document-numbering >
< test-job > true < /test-job >
< mailing-category > 0 (normal Mail) < /mailing-category >
< paper-bin > 0 (Xerox: Letterhead) < /paper-bin >
< sorting-parameters > sort, error, pagelimit, postcode; < /sorting-parameters >
< barcoding > true < /barcoding >
< barcoding-report > true < /barcoding-report >
< address-position > y -10 0 < /address-position >
< job_name > BUDINV < /job_name >
< /edipost-config >

FIG.26

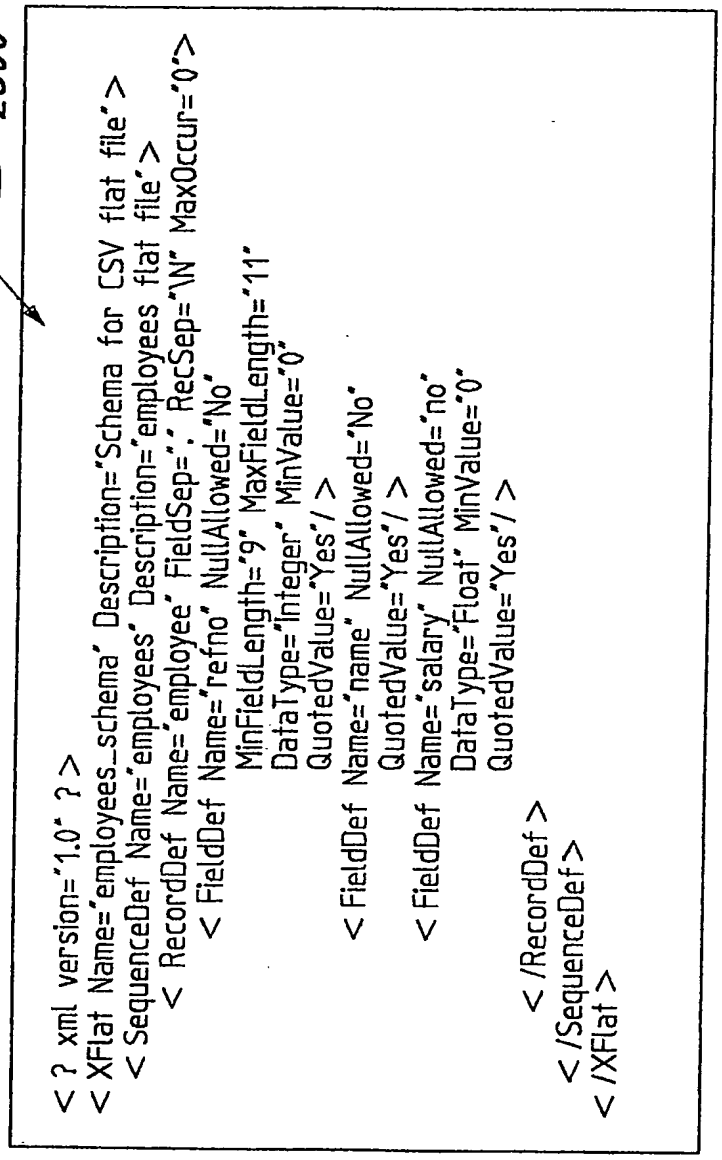

2800
< ? xml version="1.0" ? >
< XFlat Name="employees_schema" Description="Schema for CSV flat file" >
< SequenceDef Name="employees" Description="employees flat file" >
< RecordDef Name="employee" FieldSep="," RecSep="\N" MaxOccur="0" >
< FieldDef Name="refno" NullAllowed="No"
MinFieldLength="9" MaxFieldLength="11"
DataType="Integer" MinValue="0"
QuotedValue="Yes" / >
< FieldDef Name="name" NullAllowed="No"
QuotedValue="Yes" / >
< FieldDef Name="salary" NullAllowed="no"
DataType="Float" MinValue="0"
QuotedValue="Yes" / >
< /RecordDef >
< /SequenceDef >
< /XFlat >

FIG.27

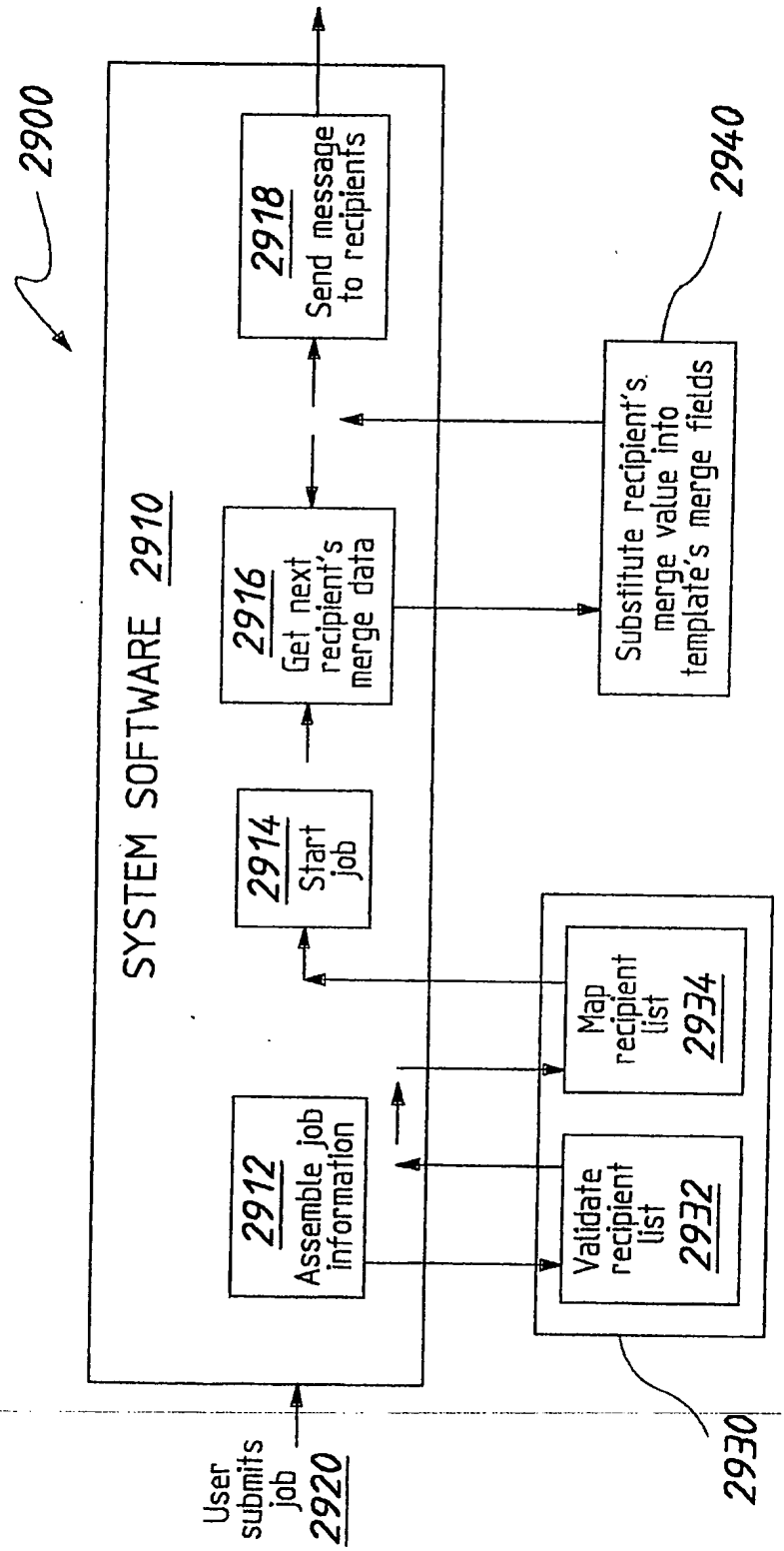

2900
SYSTEM SOFTWARE 2910
2918 Send message to recipients
2916 Get next recipient's merge data
2914 Start job
2912 Assemble job information
User submits job 2920
2940
Substitute recipient's merge value into template's merge fields
Template
Java Mapping Class
Map recipient list 2934
Validate recipient list 2932
2930

FIG.28

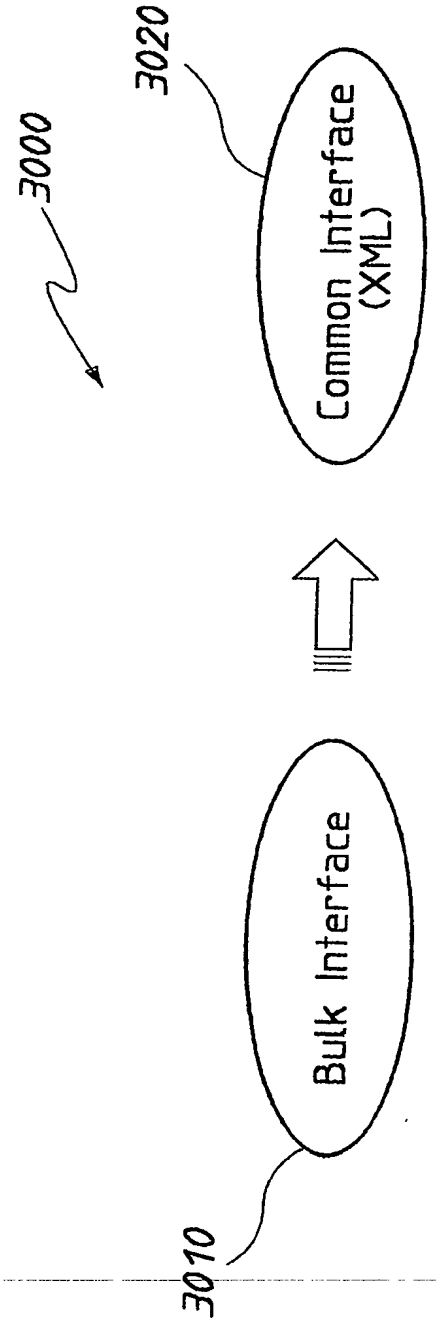

3000
3020
Common Interface (XML)
Bulk Interface
Web Interface (HTML)
3010
3012

FIG.29

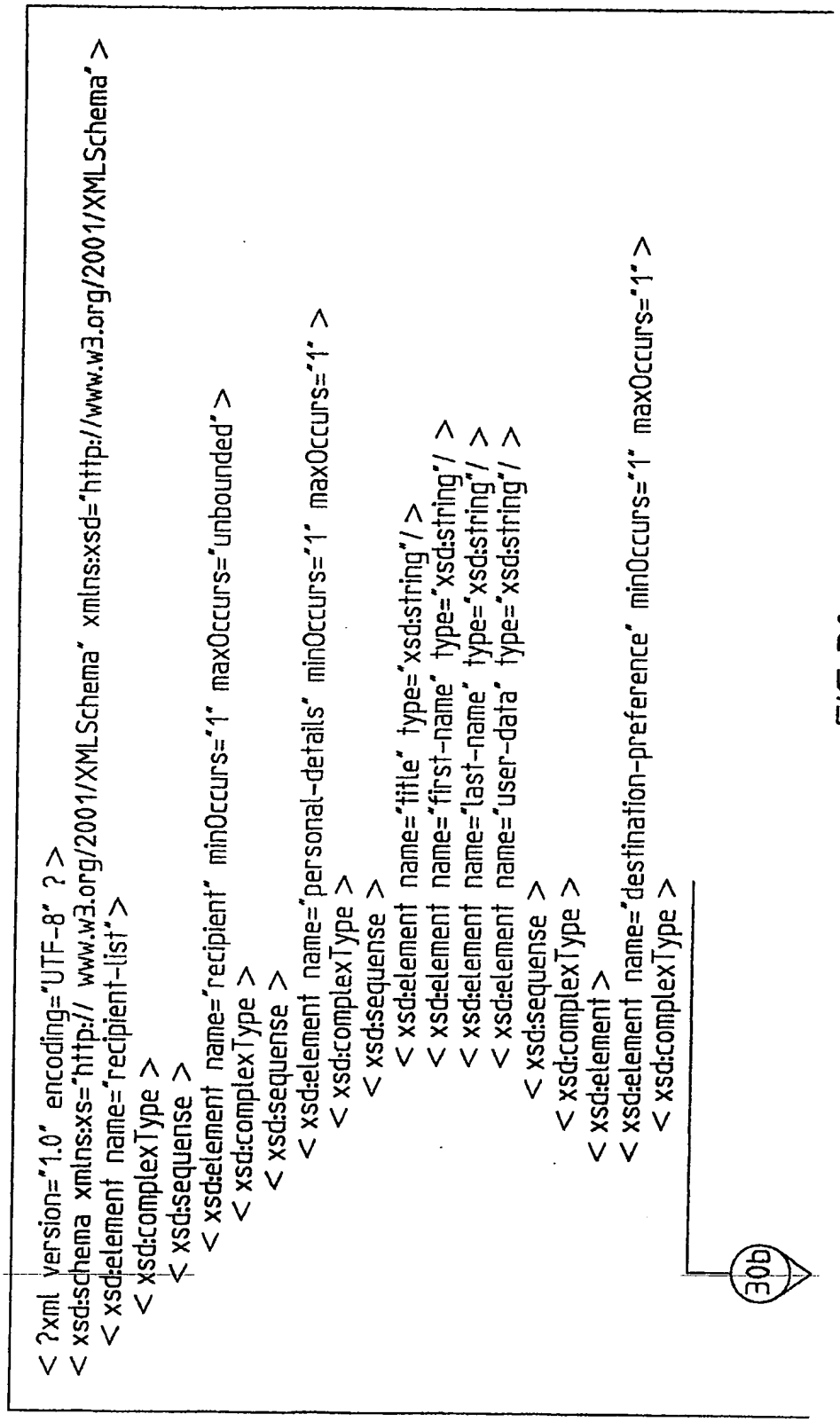

< ?xml version="1.0" encoding="UTF-8" ? >
< xsd:schema xmlns:xs="http:// www.w3.org/2001/XMLSchema" xmlns:xsd="http://www.w3.org/2001/XMLSchema" >
< xsd:element name="recipient-list" >
< xsd:complexType >
< xsd:sequense >
< xsd:element name="recipient" minOccurs="1" maxOccurs="unbounded" >
< xsd:complexType >
< xsd:sequense >
< xsd:element name="personal-details" minOccurs="1" maxOccurs="1" >
< xsd:complexType >
< xsd:sequense >
< xsd:element name="title" type="xsd:string" / >
< xsd:element name="first-name" type="xsd:string" / >
< xsd:element name="last-name" type="xsd:string" / >
< xsd:element name="user-data" type="xsd:string" / >
< xsd:sequense >
< xsd:complexType >
< xsd:element >
< xsd:element name="destination-preference" minOccurs="1" maxOccurs="1" >
< xsd:complexType >
30b

FIG.30a

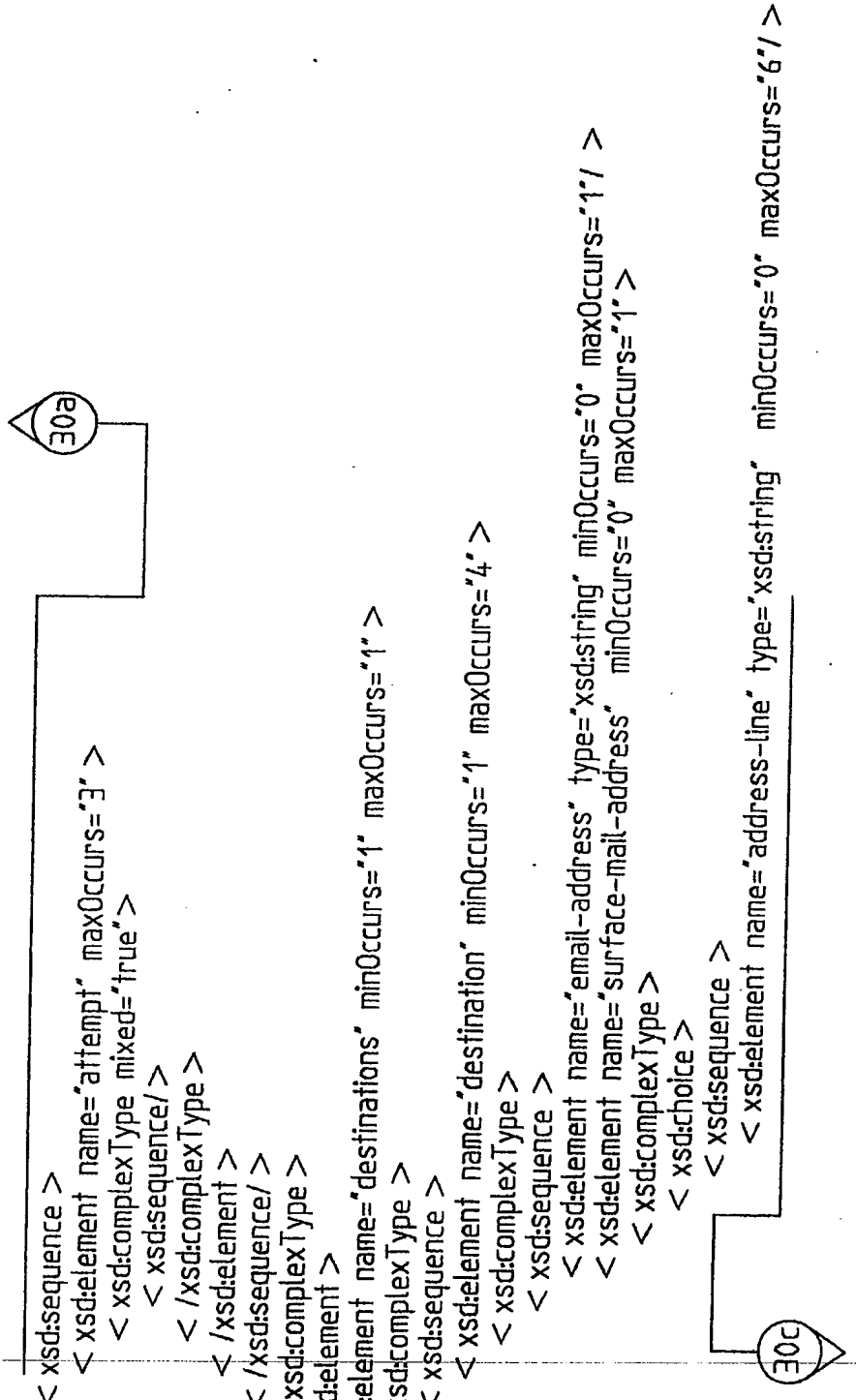

30a
< xsd:sequence >
< xsd:element name="attempt" maxOccurs="3" >
< xsd:complexType mixed="true">
< xsd:sequence/ >
< /xsd:complexType >
< /xsd:element >
< /xsd:sequence/ >
< /xsd:complexType >
< /xsd:element >
< xsd:element name="destinations" minOccurs="1" maxOccurs="1" >
< xsd:complexType >
< xsd:sequence >
< xsd:element name="destination" minOccurs="1" maxOccurs="4" >
< xsd:complexType >
< xsd:sequence >
< xsd:element name="email-address" type="xsd:string" minOccurs="0" maxOccurs="1" / >
< xsd:element name="surface-mail-address" minOccurs="0" maxOccurs="1" >
< xsd:complexType >
< xsd:choice >
< xsd:sequence >
< xsd:element name="address-line" type="xsd:string" minOccurs="0" maxOccurs="6" / >
30c

FIG.30b

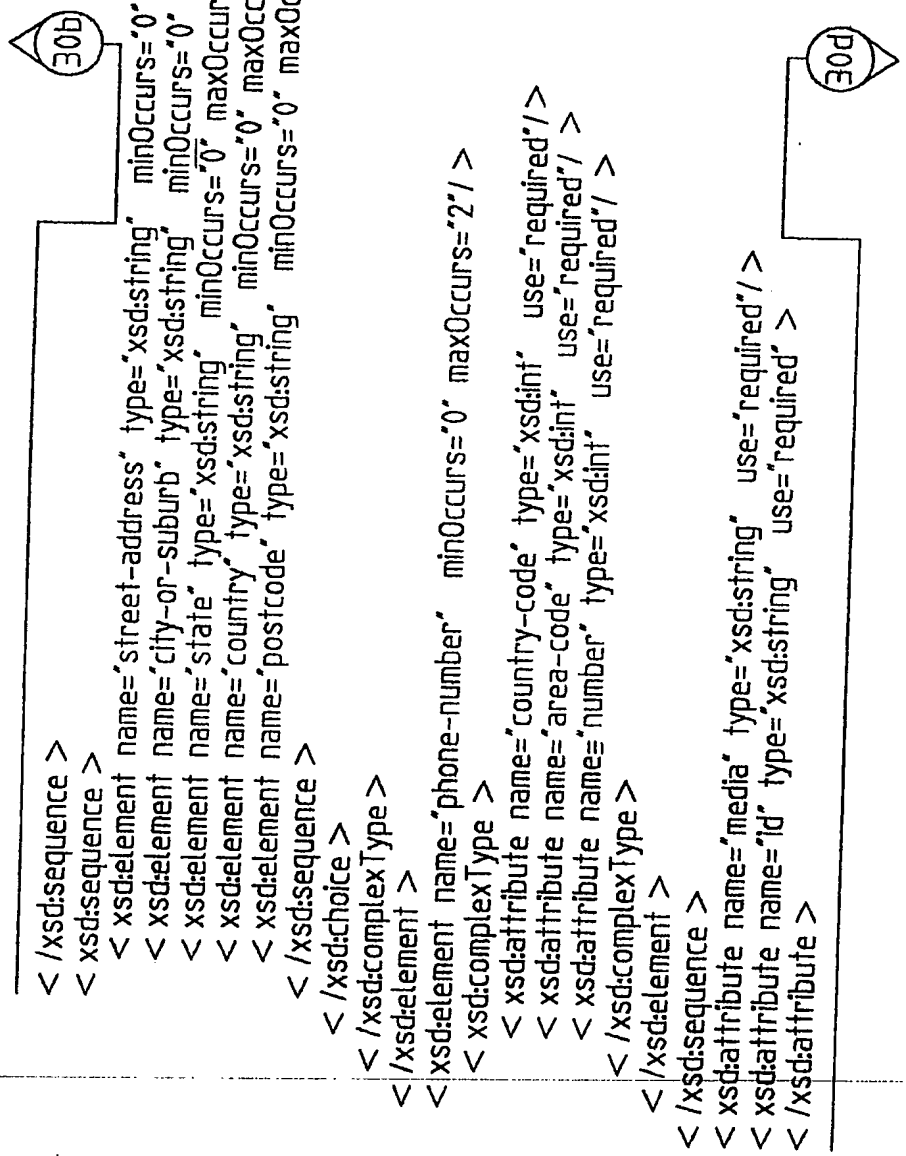

30b
30d
< /xsd:sequence >
< xsd:sequence >
< xsd:element name='street-address' type='xsd:string' minOccurs='0' maxOccurs='1'/ >
< xsd:element name='city-or-suburb' type='xsd:string' minOccurs='0' maxOccurs='1'/ >
< xsd:element name='state' type='xsd:string' minOccurs='0' maxOccurs='1'/ >
< xsd:element name='country' type='xsd:string' minOccurs='0' maxOccurs='1'/ >
< xsd:element name='postcode' type='xsd:string' minOccurs='0' maxOccurs='1'/ >
< /xsd:sequence >
< /xsd:choice >
< /xsd:complexType >
< /xsd:element >
< xsd:element name="phone-number" minOccurs='0' maxOccurs='2'/ >
< xsd:complexType >
< xsd:attribute name='country-code' type='xsd:int' use='required'/ >
< xsd:attribute name='area-code' type='xsd:int' use='required'/ >
< xsd:attribute name='number' type='xsd:int' use='required'/ >
< /xsd:complexType >
< /xsd:element >
< /xsd:sequence >
< xsd:attribute name='media' type='xsd:string' use='required'/ >
< xsd:attribute name="id" type='xsd:string' use="required" >
< /xsd:attribute >

FIG.30c

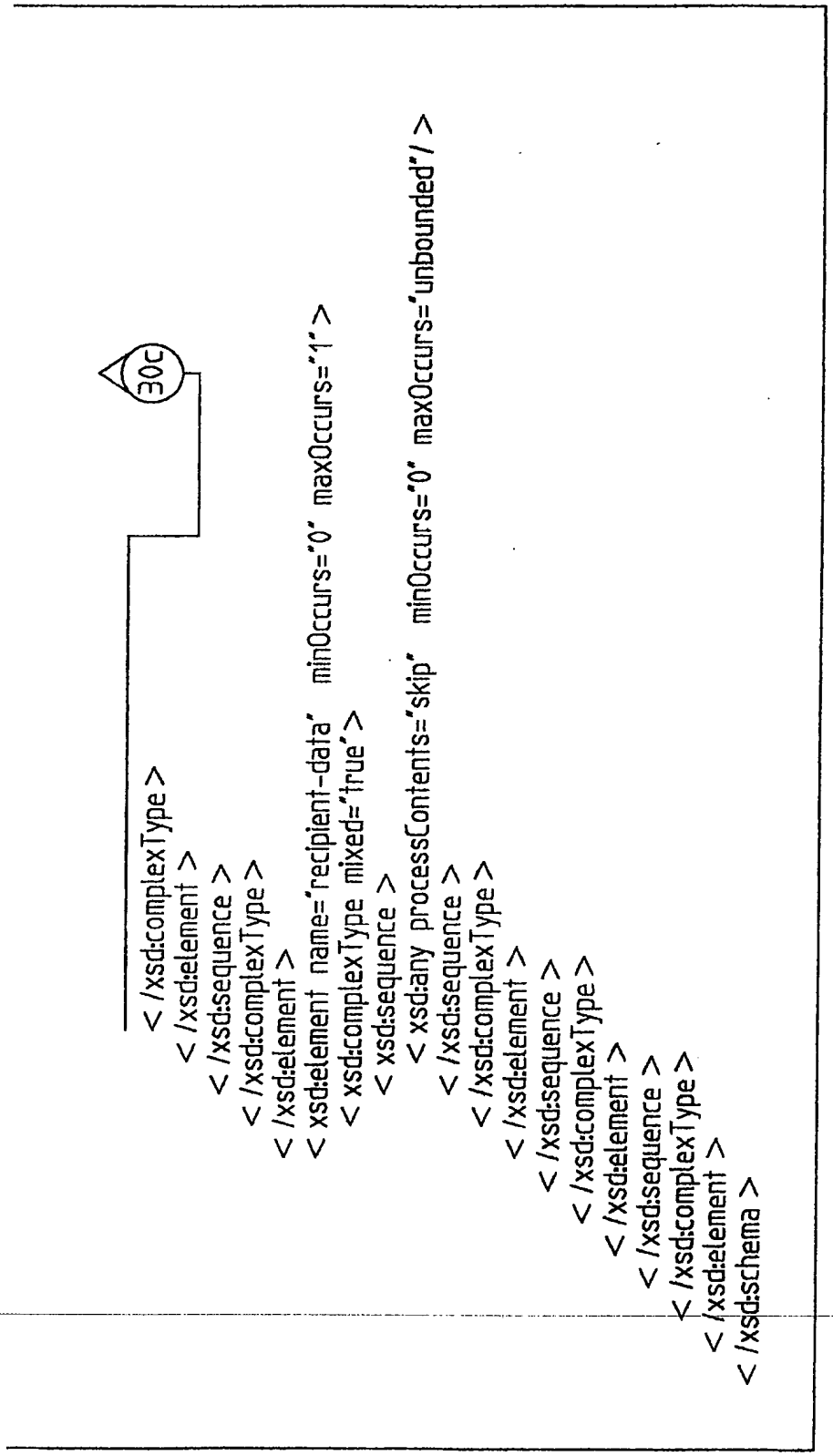

30c
< /xsd:complexType >
< /xsd:element >
< /xsd:sequence >
< /xsd:complexType >
< /xsd:element >
< xsd:element name="recipient-data" minOccurs="0" maxOccurs="1" >
< xsd:complexType mixed="true" >
< xsd:sequence >
< xsd:any processContents="skip" minOccurs="0" maxOccurs="unbounded" / >
< /xsd:sequence >
< /xsd:complexType >
< /xsd:element >
< /xsd:sequence >
< /xsd:complexType >
< /xsd:element >
< /xsd:sequence >
< /xsd:complexType >
< /xsd:element >
< /xsd:schema >

FIG.30d